Ontario

Report of the Royal Commission on the Status of Pensions in Ontario

VOLUME VI

Pensions for Ontario Public Sector Employees

1980

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Pensions for Ontario Public Sector Employees

The Royal Commission on the Status of Pensions in Ontario

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Ontario

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Introduction

When the Ontario Pension Benefits Act was introduced in 1965, the government decided that this legislation would regulate not only pension plans sponsored by employers in the private sector but also those plans provided by the Government of Ontario and its agents for their employees.(1) Employer by definition in the act "means, in relation to an employee, any person or association from whom the employee receives remuneration, and includes Her Majesty in right of Ontario, an agent of Her Majesty, a municipality as defined in The Municipal Affairs Act, and a metropolitan municipality and the local boards thereof."(2)

Under the act, certain obligations are placed on the employer who chooses to sponsor a pension plan. These requirements apply to all employers coming within the definition; with one exception, the rules are the same for both private and public employers.(3)

The Ontario government may be involved in pension plans directly, as in the Ontario Public Service Superannuation Fund; through a Crown corporation as in the Ontario Hydro plan; or indirectly, as a specific guarantor as in the Teachers' Superannuation Fund, or as an implicit guarantor through funding of health costs as in the Hospitals of Ontario Pension Plan. Municipal governments may be involved through OMERS, (Ontario Municipal Employees Retirement System, a multi-employer plan) or directly in plans sponsored by individual municipalities before OMERS came into existence. Throughout the report, plans in which the Government of Ontario is directly or indirectly responsible for costs are referred to as "public sector plans" to distinguish them from those of private employers which are called "private sector plans." Government-sponsored plans where the government is not in the role of employer, such as GAINS, GIS and the Canada Pension Plan, are referred to as "government programs" and are clearly not within the ambit of public sector plans.

Since the Ontario public sector plans are regulated on the same basis as those of private employers, they share the aspects of plan design and the problems of employment pension plans discussed in Design

for Retirement. Thus, the Commission's recommendations in Volumes II and III for employment pension plans apply to plans in both the public and private sectors.

There are however a number of matters which specifically concern public sector plans. The Honourable William Davis in his statement to the Legislature on the establishment of this Commission noted that the conspicuous fully-indexed benefits of federal and provincial public-employee pension plans had caused some public dissatisfaction with private sector pensions. The Commission was specifically directed to study the interrelationship between private and public sector pension plans. Other issues arise only for public sector plans, such as the investment of pension funds, the existence of the funds themselves, cost control in a non-profit climate, and the subject of collective bargaining for pension rights. For this reason, the Commission decided to deal with the public sector plans in a separate section of the report. Readers particularly interested in plans for Ontario government employees must refer to Volumes II and III of the report as well as to Volumes VI and VII for the complete discussion and recommendations affecting public sector plans.

In its assessment the Commission has directed itself in large measure to the consideration of the cost of public sector pensions. It became clear to the Commission in its deliberations that pension cost in the public sector is not subject to the same constraints of profitability and competition as that in the private sector. This factor, coupled with the enormous size of the public sector pension commitments, caused the Commission to concentrate on the problems of cost identification and cost control for the protection of both plan members and the taxpayers of the province.

In Ontario, 648,014 employees of government (federal, provincial and municipal) are covered by pension plans. Of these about 455,000 are in the Ontario public sector; the balance are federal civil servants most of whom are covered under the Public Service Superannuation Act of Canada.(4) This act is not subject to either the Pension Benefits Act of Ontario or the Federal Pension Benefits Standards Act.(5) In practice, however, the Superannuation Act parallels in most respects the requirements of the Pension Benefits Act. References to data on the Ontario public sector plans contained in Volumes VI and VII do not include employees who may be members of federal government plans. However, most pension data sources, including Statistics Canada, include these federal plan members as part of Ontario's public sector, and those sources were used by the Commission in other volumes of the report. This must be kept in mind when considering the public sector data. The discussion does not include federal government plans unless specific reference is made to them.

There are some 127 public sector plans in the province covering Ontario government employees. In order to collect factual details of

these plans the Commission obtained the services of Dr. Laurence Kelly, an industrial relations consultant associated with Queen's University, Kingston. Dr. Kelly obtained information through questionnaires directed to each of the 127 plan sponsors and also by meeting with a number of individuals and groups participating in these plans. In addition, the Commission received many briefs and heard submissions from persons concerned with the public sector plans. The factual data compiled by Dr. Kelly is entitled, "Ontario Public Sector Pension Plan Data," and is found in Volume VII of the report. It is referred to in the text as the "public sector study." Dr. Kelly also presented his discussion of the data in report form which has been in large part incorporated into the text of Volume VI. The original report is filed with the Archivist of Ontario as part of the Commission's papers.

Occasionally discrepancies may be noted between the public sector study and other data supplied to the Commission and used in Volume VI. These discrepancies reflect primarily difficulties in obtaining data based on the same time periods and on the same data criteria. This is perhaps one of the most difficult problems which public sector administrators must face in seeking effective control over the plans. However, the Commission is satisfied that the public sector study provides a sufficient base for its assessment of public sector plans in Ontario today.

NOTES

(1) The Pension Benefits Act, R.S.O. 1970, c. 342, does not apply to the pensions of members of the Ontario Legislature. They come under The Legislative Assembly Retirement Allowances Act, R.S.O. 1970, c. 241, and are not "employees" as defined in the Pension Benefits Act. A minor exception for retirement allowances under The Municipal Act and The Schools Administration Act is made in section 21 of the Regulation, R.R.O. 1970, Reg. 654, under the Pension Benefits Act.

(2) Pension Benefits Act, s. 1(d).

(3) This exception deals with the funding of initial unfunded liabilities for past service existing on January 1, 1965 when the Pension Benefits Act came into force. Under the act such initial unfunded liabilities in the plan of a private employer are amortized over not more than 25 years and are being gradually paid off by special payments ending in 1989. Government bodies are not required to make special payments but pay interest only on these initial unfunded liabilities, with the result that these liabilities continue but do not increase. (O. Reg. 654, sec. 2(13))

(4) The Public Service Superannuation Act, S.C. 1952-53, c. 47.

(5) Pension Benefits Standards Act, R.S.C. 1970, c. P-8.

Pensions for Ontario Public Sector Employees

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Chapter 1

Membership

THE PUBLIC SECTOR

There are 127 pension plans in the Ontario public sector, which includes the provincial government, its agents and corporations, and municipalities; and other bodies receiving funds directly or indirectly from the provincial government or a municipal government in Ontario. These plans had 455,000 active members in 1977. Five of these plans covered 84 per cent of the membership.

For ease of classification these sectors are divided into six sub-sectors as follows:

Provincial Government

The 79,887 members in this sub-sector are employees of the Ontario government directly and of 13 various agencies and boards such as the Workmen's Compensation Board and the Art Gallery of Ontario. In this sub-sector 76,712 (96 per cent) are members of the plan provided by the Public Service Superannuation Act (PSSA).(1) The province itself is the designated employer under the PSSA, and individual boards and agencies are the employers for the balance of employees in this sector.

Education

This sub-sector has 154,704 members, employed by school boards and educational institutions.

The Teachers' Superannuation Act(2) covers 115,563 members and includes teachers in elementary and secondary schools. The Teachers' Superannuation Fund is a multi-employer plan which covers 313

employers, chiefly school boards and designated private schools, although the province makes the employer contributions. The remaining members in this sub-sector are employees of colleges, (including technical colleges), universities, and the Ontario Institute for Studies in Education.

Municipal Government

This sub-sector has 129,015 members of which 106,731 are members of the plan established under the Ontario Municipal Employees Retirement System Act (OMERS).(3) OMERS is a multi-employer plan covering employees of 1,006 Ontario municipalities and local bodies. The province is not a direct employer, but financing for both municipal and non-teaching school board staff occurs through transfer payments from the province. The remaining members are covered by closed municipal plans, the Toronto Transit Commission, conservation authorities, and other local associations and bodies. About 365 small villages and townships in Ontario do not participate in OMERS.

Health

This sub-sector covers employees of hospitals and health institutions and bodies. Of the 68,110 members, 63,645 are members of the Hospitals of Ontario Pension Plan.(HOOPP) This plan is a multi-employer plan in which individual hospitals may participate and are the employers. HOOPP and the plans covering employees in this sub-sector resemble private sector plans but the province provides funds for operating costs generally. There are 258 employers participating in HOOPP.

Provincial Utilities

This sub-sector covers employees of Ontario Hydro and the Ontario Northland Transportation Commission. There are 20,478 members of the Hydro Pension Plan provided for under the Power Corporation Act(4), and 1,622 in the Ontario Northland Transportation Commission plan (ONTC). Ontario Hydro or the Commission is the employer, but the province exercises indirect control over finances.

Legislative Assembly

There are 123 members of the Legislative Assembly for whom pensions are provided under the Legislative Assembly Retirement Allowances Act(5), and 157 members of the Caucus Employees Retirement Plan provided by order-in-council.

The Commission has concentrated on the five largest plans which cover 84 per cent of public sector membership. These are: the Teachers' Superannuation Fund (TSF) (115,563), the Ontario Municipal Employees

Retirement System (OMERS) (106,731), the Public Service Superannuation Fund (PSSF) (76,712), Ontario Hydro Pension Plan (Hydro) (20,478), and Hospitals of Ontario Pension Plan (HOOPP) (63,645).

PROFILE OF THE MEMBERSHIP

Active Members

The following tables show the active membership by age, sex, sub-sector, and years of service.

Table 1
Ontario Public Sector Active Pension Plan Membership, by Age Group and Sex, December 1977

Age	Males	Females
Under 20	190	608
20-24	6,724	16,877
25-29	24,156	38,082
30-34	29,213	25,028
35-39	24,677	18,533
40-44	20,032	14,785
45-49	18,889	14,145
50-54	17,537	13,199
55-59	14,485	10,737
60-64	9,406	7,191
65+	886	639
Sex breakdown only available	70,782	36,318
Total	236,977	196,142

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Table 2
Ontario Public Sector, Percentage Distribution of Active Membership by Age and Sex, 1977

Age	Provincial government (a)		Municipal government (open)(b)		Municipal government (closed)(c)		Health (d)		Education (e)		Provincial utilities (f)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 20	.2	1.5	.1	2.5	.0	.0	.1	.1	(g)	(g)	.3	1.5
20–24	5.3	16.5	5.5	28.6	.0	.0	4.2	10.2	2.3	7.8	7.5	21.7
25–29	14.4	18.6	13.6	15.0	.7	(g)	11.7	18.8	17.1	30.4	16.4	24.6
30–34	14.3	12.4	16.0	12.5	8.7	7.3	14.0	12.9	23.0	18.9	16.4	15.0
35–39	11.5	9.1	13.2	8.5	13.1	7.7	12.0	11.1	19.7	13.0	11.3	8.7
40–44	10.8	8.3	12.7	6.3	16.0	10.7	10.2	9.9	13.3	9.1	9.9	6.5
45–49	11.1	8.6	12.5	8.7	19.4	16.2	11.2	10.6	10.0	7.6	12.2	7.0
50–54	12.4	9.8	11.7	10.0	17.6	20.5	11.7	10.4	7.1	5.9	12.1	7.3
55–59	11.5	8.8	9.0	4.2	14.9	20.7	11.9	8.9	4.7	4.2	9.1	5.4
60–64	8.0	6.0	5.0	3.2	8.3	14.5	10.9	6.2	2.6	2.8	4.6	2.1
65 and over	.4	.2	.7	.6	1.3	2.2	2.2	.8	.2	.2	.3	.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a Based on data for 79,459 of 79,852 plan members.
b Based on data for 9,958 of 116,582 plan members.
c Based on data for 7,455 of 12,163 plan members.
d Based on data for 62,976 of 69,110 plan members.
e Based on data for 129,316 of 154,704 plan members.
f Based on data for all 22,110 plan members.
g Three persons or less in this age group.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Table 3

Ontario Public Sector, Percentage Distribution of Active Membership by Length of Service, 1977

Pensionable service	Provincial government (a)		Municipal government (open) (b)		Municipal government (closed) (c)		Health (d)		Education (e)		Provincial utilities (f)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
(Years)												
Less than 5	28.1	47.6	39.8	61.4	(g)	(g)	38.6	44.6	27.8	36.9	30.6	46.1
5- 9	26.6	28.2	17.1	19.3	1.2	1.2	33.4	32.6	30.6	33.3	24.3	26.0
10-14	18.0	12.6	14.5	8.0	28.3	48.5	15.3	13.8	23.2	14.4	10.7	12.1
15-19	11.6	6.0	7.9	3.8	26.0	31.5	6.5	5.4	12.0	6.8	4.2	4.7
20-24	8.3	3.2	8.6	3.4	28.2	16.0	4.7	3.1	5.5	3.9	9.8	4.6
25-29	4.2	1.0	7.6	2.5	9.6	1.9	1.3	.4	3.4	2.4	15.1	4.0
30-34	2.6	.4	3.7	1.3	5.9	.5	-	-	1.7	1.4	4.2	1.7
35 or more	.6	.3	.9	.4	.7	.4	.1	(g)	.8	.7	1.2	.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a Based on data for 79,459 of 79,852 plan members.
b Based on data for 9,958 of 116,582 plan members.
c Based on data for 7,455 of 12,163 plan members.
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f Based on data for all 22,110 plan members.
g Three persons or less in this age group.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Table 4
Ontario Public Sector, Average Years of Pensionable Service by Age and Sex, 1977

Age	Provincial government (a)		Municipal government (open)(b)		Municipal government (closed)(c)		Health (d)		Education (e)		Provincial utilities (f)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 25	2.3	2.4	2.1	2.3	-	-	2.2	2.1	2.1	2.2	2.1	2.2
25-29	4.4	4.1	2.9	4.3	8.9	7.0(g)	3.5	3.5	3.8	4.6	3.9	4.7
30-34	6.9	5.3	4.8	5.6	11.7	12.0	5.1	5.0	7.4	7.1	6.3	6.8
35-39	9.3	6.4	6.8	6.2	14.7	13.3	6.5	6.1	10.9	8.7	8.4	8.8
40-44	11.5	7.3	9.4	8.1	17.1	14.1	7.2	6.6	13.2	10.3	12.8	11.3
45-49	13.2	8.8	13.2	7.7	19.4	15.0	8.6	8.1	15.0	12.4	18.9	13.2
50-54	15.1	10.2	17.5	11.7	21.8	15.9	9.3	9.3	17.0	15.3	21.8	17.1
55-59	15.9	12.5	22.3	13.3	22.7	17.1	10.2	10.9	18.3	18.2	23.1	19.2
60-64	16.1	14.3	24.8	13.1	21.9	17.8	11.2	12.8	19.0	21.0	24.1	22.8
65 and over	12.4	10.4	24.4	31.3(g)	23.0	17.0	12.1	14.1	14.4	17.8	24.6	23.7(g)

a Based on data for 79,459 of 79,852 plan members.
b Based on data for 9,958 of 116,582 plan members.
c Based on data for 7,455 of 12,163 plan members.
d Based on data for 62,976 of 69,110 plan members.
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f Based on data for all 22,110 plan members.
g Three persons or less in this age group.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Table 5
Ontario Public Sector, Percentage of Active Membership With 10 or More Years of Service, by Age Group, 1977

Age	Provincial government (a)		Municipal government (open)(b)		Municipal government (closed)(c)		Health (d)		Education (e)		Provincial utilities (f)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 30	2.4	1.7	.4	1.2	38.8	.0(g)	1.0	.3	.4	1.0	1.3	1.9
30-34	27.7	14.9	13.4	24.2	94.3	96.5	11.4	8.1	27.2	30.2	20.7	29.8
35-39	47.3	20.9	33.1	24.4	99.5	100.0	22.0	18.1	64.1	42.0	37.4	40.6
40-44	55.5	26.7	47.0	33.3	100.0	100.0	25.5	21.5	71.0	47.3	56.7	53.9
45-49	60.8	36.2	64.0	28.3	99.6	100.0	36.1	32.9	72.7	56.1	76.5	55.8
50-54	66.4	46.0	78.6	41.5	99.9	98.1	39.6	41.9	64.7	66.5	83.4	73.7
55-59	70.4	62.3	89.2	50.0	99.7	100.0	45.1	53.6	74.5	76.0	85.2	76.9
60-64	76.1	72.8	93.7	70.6	99.3	98.2	52.2	67.2	76.8	85.0	90.0	90.8
65 and over	49.7	50.8	94.1	100.0(g)	100.0	94.1	57.4	72.9	60.5	74.0	94.4	(g)

a Based on data for 79,459 of 79,887 plan members.
b Based on data for 9,958 of 116,852 plan members.
c Based on data for 7,455 of 12,163 plan members.
d Based on data for 62,976 of 69,852 plan members.
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f Based on data for all 22,110 plan members.
g Three persons or less in this age group.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Women represent 45.3 per cent of active plan members. However by sub-sectors the proportion varies widely. Women represent a majority of the active membership in health (79 per cent) and in education (56 per cent). They account for 37 per cent of active membership in provincial government, 31 per cent in municipal government, and 14 per cent in provincial utilities. In each sub-sector women represent a higher proportion of those under 30 years of age than of total membership, ranging from 87 per cent in health to 25 per cent in provincial utilities.

The majority of active pension plan members are under 40 years of age. In each sub-sector, the largest number of members is in the 25 to 29 age group.

In each sub-sector except health, the average service of men exceeds that of women by a significant margin beyond a certain age. This presumably reflects the fact that many women leave employment during child-rearing years and return to work later. The gap tends to narrow in age groups close to retirement age, partly, perhaps, because of the early retirement of long-service males, and partly because in the older age brackets there are likely to be few female re-entrants. The most notable difference between sub-sectors is the shorter average pensionable service in health in each age bracket to 60-65, which is partly explained by the fact that this plan was established only in 1966. The average service in the provincial government is lower than in education, municipal government, or provincial utilities.

In the provincial government and also in education, there is a decline in average pensionable service after age 65. There are very few active members in this age category, however, and close to half of those who continue working beyond the normal retirement age in these sub-sectors are persons who do not meet the minimum service requirements for a pension.

The proportion of active members in each age category who have 10 or more years of pensionable service shows much the same pattern of variation in each sub-sector as does average pensionable service. In each sub-sector except health, the proportion of women who have 10 years service or more is significantly lower than that of men over a fairly broad age range; although the proportions tend to be about the same among those who are close to retirement age. Again, there are quite wide variations between sub-sectors; e.g., in provincial utilities at one extreme, 90 per cent of males and females aged 60-64 have 10 or more years of service, whereas in health, at the other extreme, only about two-thirds of the females and half of the males in that age bracket have at least 10 years' pensionable service. Among those aged 45 or over, the proportion who have 10 or more years of service in each sub-sector varies as follows:

Provincial Government	-	63.0
Municipal - Open	-	77.3
Municipal - Closed	-	99.7
Health	-	46.3
Education	-	70.6
Provincial Utilities	-	81.4

Termination rates of employees by years of service are shown in Table 6.

Termination Rates

Generally speaking, the higher the termination rate, the less the pension cost will be, because fewer employees stay long enough to receive pensions. The higher the average rate of termination, the fewer will be the number of employees who have substantial continuous service. For example, with an average annual termination rate of 6 per cent, just over half of every 100 new employees would still be employed by the same organization after 10 years. With an average termination rate of 2 per cent, 80 per cent of them would acquire 10 years of service.

Table 6 reveals that, except for teachers, and to a lesser extent, hydro and municipal utilities employees, there is a marked decline in termination rates during the first 9 years of service. In all plans except the TSF the termination rates of those with 10 or more years of service are lower - generally much lower - than those of shorter-service employees. The much lower rate for teachers than for other groups is no doubt partly explained by the fact that teaching is a profession that people would normally enter with a view to pursuing it on a career basis; if they change employment, it is very likely to be to another school board. Also important, however, is the fact that the TSF allows employees to leave their contributions in the fund after any length of service in case they return to work. Those who take advantage of this opportunity do not terminate their membership in the plan.

Table 6
Ontario Public Sector, Rates of Termination, by Years of Service, 1977

Years of service	PSSF	Other provincial government agencies	Municipal utilities	TSF	Universities	Ontario Hydro	ONTC
				(Per cent)			
Less than 1	-	11.13	4.84	-	14.30	5.37	3.08
1	24.14	11.92	5.66	1.49	14.65	4.39	18.60
2	10.77	7.25	7.64	1.66	10.50	3.98	17.39
3	7.44	6.86	3.57	1.31	8.45	5.51	8.24
4	7.24	6.20	4.95	1.53	7.38	4.12	8.86
5	6.12	6.3	3.37	1.53	5.41	3.99	6.45
6	5.89	5.7	1.89	1.36	3.56	2.87	10.52
7	3.78	5.8	3.87	1.22	3.86	2.38	5.26
8	5.38	4.54	1.30	.99	3.54	2.53	4.25
9	2.91	4.05	2.76	.97	1.74	3.75	5.40
10 or more	.88	1.93	1.74	1.44	.91	3.87	.60
Average termination rate	6.98	6.59	3.4	1.39	5.7	3.92	6.45

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Termination rates are higher for women. In both the PSSF and TSF, the average termination rates for females is more than twice that of males. Moreover, this is not simply a result of the fact that younger females have high withdrawal rates: in the PSSF, females with 10 or more years of service have a termination rate almost twice that of males while in the TSF the rate for females with 10 or more years of service is about four times that of males. HOOPP was the only other plan which provided data on male and female termination rates. Data for HOOPP for 1976 show that the average termination rate for females (9.59 per cent) was only slightly higher than that for males (9.13 per cent). These figures are not directly comparable with those provided by other plans, since hospital employees are not required to join HOOPP in the first two years of their service, and it is in these two years that termination rates are generally highest. The high termination rates of both males and females from this plan, however, seem to partly explain why pension plan members in the health sub-sector have much shorter pensionable service in each age bracket than those in other plans.

We received some information on the proportion of vested plan members who elect to receive a deferred life annuity rather than a refund of contributions. In the PSSF, which has a 10-year vesting requirement, 12.63 per cent of terminating employees in 1976 who had 10 or more years of service and who had a choice of receiving a refund of their contributions or a deferred life annuity, opted for the latter. In OMERS, over the period 1974-1977, 18.95 per cent of the males and 15.06 per cent of the females who had 10 years of service and who were under age 45 elected a deferred annuity. In the TSF, by contrast, 86.9 per cent of the terminating employees in 1977 who had 10 or more years of service and whose contributions were not required to be locked-in, elected not to withdraw these. Figures provided by Ontario Hydro are not directly comparable, since they relate to all terminating employees entitled to receive a deferred pension, including those whose contributions are required to be locked in under the 45 and 10 rule and those who leave after only one year of service. They show that 10.9 per cent of the vested employees who terminated in 1977 opted for or were required by law to take a deferred life annuity.

Plan Membership and Vesting Provisions

Vesting provisions in the Ontario public sector vary widely, ranging from immediate vesting to vesting after the legally required standard of age 45 and 10 years' service. As shown in Table 7, a majority of all active plan members (61.9 per cent) are subject to a 10-year vesting requirement, which reflects the fact that the vast majority of those in provincial government (99.5 per cent), health (96.0 per cent), and education (84.7 per cent) are covered by such a provision.

Table 7
Ontario Public Sector Employees Covered by Various Vesting Provisions, 1977

Vesting provision	Employees	Per cent of total
	(Number)	
Immediate	122,011	27.1
1 year's service	20,478	4.5
10 years' service	279,067	61.9
Age 45 and 10 years' service	21,052	4.7
Other	8,043	1.8

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Because of the limitations of the data, it is not possible to show the number of vested employees in each sub-sector. It is possible, however, to give a rough indication of how the numbers compare. The highest proportion of vested plan members is in the municipal government, since OMERS, which has immediate vesting, covers 84 per cent of the active members in this sub-sector. A majority of the other plan members in the municipal government are subject to the 45 and 10 vesting provision, which would mean that a minority are vested.

In provincial utilities, a large majority of plan members have vested pension rights since Ontario Hydro, which accounts for 93 per cent of the membership in this sub-sector, has a one-year service requirement. The other employer in this sub-sector - ONTC - has a 10-year vesting requirement. In education where most employees are covered by a 10-year vesting provision, about 60 per cent of all active members are vested, while in the provincial government and health sub-sectors, where this provision also predominates, the proportions are about 38 per cent and 30 per cent respectively.

OMERS, which has immediate vesting, provided data on the percentage of male and female employees who elected a deferred annuity by years of service, with a separate breakdown for those under 45 years of age. The data indicate that employees who are aged 45 or more and who have one to nine years of service are much more likely to elect a deferred annuity than a refund of contributions, than are persons under 45 with the same years of service. Moreover, while there does not appear to be any consistent relationship between length of service and preference for a deferred annuity among those under 45, the fact that the percentage of all plan members electing a deferred annuity increases with length of service, indicates that in the 45 and over group there is a direct relationship between length of service and the propensity to opt for a deferred annuity. The high proportion of employees of all ages who

"elect" a deferred annuity after 10 years of service partly reflects the fact that the contributions of those aged 45 and over are locked in. Among those under 45, the proportion jumps sharply after nine years of service.

Pensioners

Public sector pensioners include those receiving retirement pensions (retirees) as well as those receiving disability pensions and survivor pensions. Table 8 shows the distribution of all pensioners by age and sex.

Table 8
Ontario Public Sector, Distribution of Pensioners by Age and Sex, as of December 1977(a)

Age	Male	Female
55 and under	544	1,107
56–60	1,079	1,893
61–65	3,510	4,671
66–70	5,013	6,361
71–75	2,800	4,296
76–80	1,353	2,526
81 and over	923	2,009
Total	15,222	22,863
Total pensioners	38,085	

a Excludes pensioners in HOOPP, OMERS, provincial utilites, and some smaller plans.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

The data do not always distinguish between the types of pension, that is, whether it is a retirement, survivor, or disability pension. In addition those in receipt of a retirement pension include those who may be receiving a pension which arose as a result of terminating employment with a vested benefit, that is, a deferred life annuity. Thus, retirees may be retirees from other than the public sector. Furthermore, pensions may be paid to those under age 65 or normal retirement age.

The information obtained about pensioners by year of retirement and sex relates mainly to the provincial government and education sub-sectors: over 90 per cent of those for whom these breakdowns were provided were members of plans in these sub-sectors, the vast majority of them members of the PSSF and TSF. The distributions therefore cannot be considered representative of the public sector as a whole, either with respect to the relative number of male and female pensioners (with

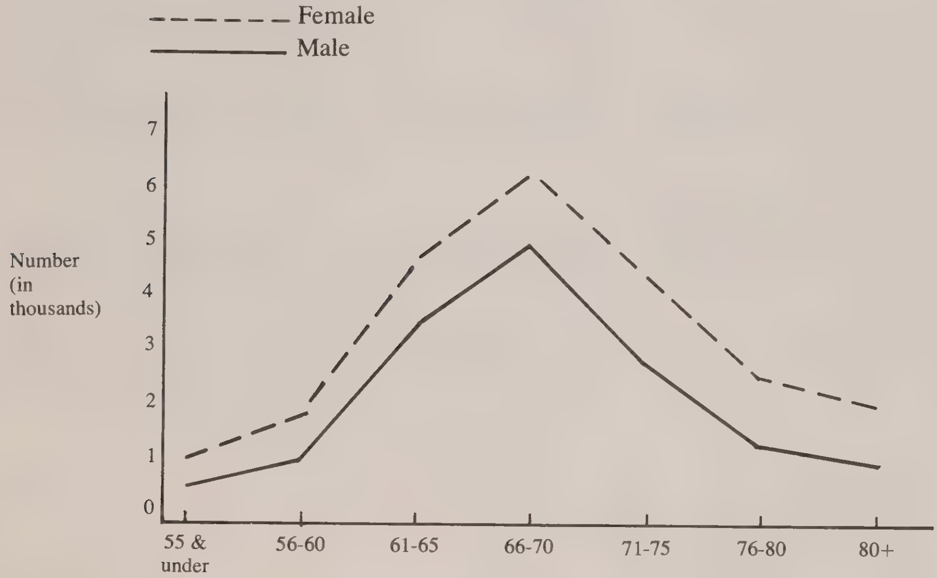
survivors included females represent a majority of the pensioners in both provincial government and education) or with respect to distributions by age and year of retirement (HOOPP and OMERS, which are relatively new plans, could be expected to have very few pensioners in older age categories).

Nevertheless, the figures do provide some insight into trends and patterns in the pensioner population of plans which, for the most part, are mature plans. The data show that 20.6 per cent of those receiving pensions as of December 31, 1977 had been receiving them since 1965 or earlier; another 24.9 per cent had been on pension since 1966-70; while the remaining 53.5 per cent began to receive their pensions in 1971 or later. These proportions reflect a high rate of increase in the number of new pensioners since 1960 as well as the expected mortality among older pensioners.

The high rate of growth is reflected also in the accompanying chart, which shows the distribution of pensioners as of December 1977 according to their ages at that date. The chart shows that by far the largest number of male and female pensioners is in the 66-70 age bracket, which includes those who have retired in recent years at normal retirement age. Thereafter the numbers decline, mainly because there were fewer new pensioners in the years when people in these age categories retired but partly, of course, because of higher mortality rates.

Although not obvious from the chart, there are quite wide variations in the ratio of female to male pensioners in the different age categories. The ratio declines from 2:1 in the 55-and-under age bracket to 1.3:1 in the 66-70 age category, presumably because the number of persons receiving survivor pensions is a diminishing proportion of the total. After age 70 the ratio rises again, reaching 2.2:1 in the 81-and-over age group. In part, this may be the result of differences in mix of male and female retirees in the past; for in the TSF, which accounts for close to half of those to whom the chart relates, there has been a steady decline in the proportion of female contributors. However, differences in male and female mortality rates are undoubtedly also a factor.

Chart 1
Ontario Public Sector, Distribution of Pensioners by Age and Sex,* December 1977



*Excludes pensioners in HOOPP, OMERS, Provincial Utilities and some smaller plans

Care must be taken when looking at figures which are "average" pensions. For example, these may include survivor pensions which are about 50 per cent of retirement pensions. Averages also include those in receipt of pensions with long as well as shorter service. There may also be higher average earnings because of the nature of the work, as is the case with plans having a high proportion of managerial and professional employees. The age of retirees may also be a factor if there is a large number of recent retirees.

Table 9 shows the proportion of pensioners by type of pension.

Table 9
Ontario Public Sector, Pensioners by Type of Pension

	Retirement	Survivor	Disability
		(Per cent)	
PSSF (1976)	66.8	9.3	23.8
TSF (1977)	83.0	9.6	7.4
WCB(a) (1977)	76.7	21.9	1.4
Hydro (1977)	49.7	40.9	9.4
OMERS (1976)	74.5	5.4	20.0

a Workmen's Compensation Board.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

The number of beneficiaries as a percentage of active members is as follows:

PSSF (1977): 14.2 per cent
TSF (1976): 11.3 per cent
OMERS (1977): 9.2 per cent
HOOPP (1977): 14.8 per cent
Hydro (1977): 13.2 per cent

The total number and cost of pensions paid for 1977 for selected plans are as follows:

Table 10
Ontario Public Sector, Total Payments to Pensioners, 1977 (Retired, Disabled, Survivors)

	Amount (Number)	Amount (Millions of dollars)
PSSF	16,376	65,484
TSF	18,969	116,458
OMERS (1976)	11,471	12,856
HOOPP	9,750	9,182
Hydro	4,172	20,568
WCB	365	1,420
Toronto Transit Commission	1,264	5,160
Metro Toronto Police	801	3,921
Toronto Fire Department	489	1,876
Legislative Assembly	76	674

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Plan sponsors or their agents do not maintain detailed files on their pensioner population beyond the information on the amount of pension payable. Distribution of pensioners by age, year of retirement, or years of service is not available and many plans do not distinguish among retirees, survivors, and disabled.

GROWTH

Members

Growth in the number of active members for the five major pension plans is shown in Table 11. Statistics on membership prior to 1960 for plans then in existence are not readily available.

Table 11
Ontario Public Sector, Number of Members of the Five Major Pension Plans, 1960-1977

	TSF	PSSF	Hydro	HOOPP	OMERS
			(Number)		
1979		77,047	23,100	65,052	116,134(E)
1978	135,298	77,564	21,997	64,823	115,615
1977	136,711	76,712	20,478	63,000E	106,030
1976	139,138	75,065	19,555	59,680	102,432
1975	137,280	75,371	19,355	53,474	97,275
1974	131,808	74,540	18,126	50,872	88,708
1973	139,971	72,748	17,461	49,098	83,854
1972	119,873	70,379	17,187	47,409	77,258
1971	105,657	68,735	17,032	42,694	72,659
1970	93,000	62,888	15,711	38,819	64,993
1965	73,006	41,432	11,953	23,942	23,918
1960	48,011	28,413	-	10,988	9,863(a)

E Estimate.

a Figure is for 1963.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data" and Ministry of Treasury and Economics.

Growth rates of the major pension plans vary greatly from plan to plan and over the years. The Ontario public service grew rapidly until 1976 when the government adopted a constraint program. Municipal employment has been growing at a faster rate than provincial employment. Teachers are the victims of demographic shifts resulting from the fall in the birth rate during the late 1960s. The great rate of growth in the health sector reflects society's increasing demand for services. A discussion of future growth trends is found in Chapter 5.

The growth of pensioners over the years is shown in Table 12.

Table 12
Ontario Public Sector Major Pension Plans, Number of Pensioners(a) and Total Payments to Pensioners, Selected Years, 1960-1977

	Teachers' Superannuation Fund		Public Service Superannuation Fund		Ontario Hydro		Hospitals of Ontario Pension Plan		Ontario Municipal Employees Retirement System	
	(Number)	(Amount)	(Number)	(Amount)	(Number)	(Amount)	(Number)	(Amount)	(Number)	(Amount)
1977	18,969	116,458,000	16,376	65,484,000	4,172	20,568,000	9,750	9,182,000	13,160	16,660,000
1976	17,924	101,618,000	15,284	54,863,000	3,969	16,608,000	8,507	7,409,000	11,471	12,867,000
1975	17,113	102,077,000	14,084	45,107,000	3,693	13,829,000	7,922	6,518,000	9,821	8,983,000
1974	16,257	75,145,000	12,972	38,926,000	3,555	12,736,000	7,273	5,010,000	8,394	6,644,000
1973	15,245	62,762,000	11,835	32,062,000	3,350	10,661,000	6,441	4,099,000	6,908	4,612,000
1972	13,792	51,413,000	10,706	26,998,000	3,094	8,645,000	5,607	3,330,000	5,663	3,195,000
1971	12,217	43,937,000	9,506	24,010,000	2,921	7,742,000	4,799	2,687,000	4,592	2,117,000
1970	11,111	35,259,000	8,607	20,507,000	2,704	6,237,000	4,076	2,130,000	3,444	1,276,000
1965	7,002	15,787,000	5,053	9,168,000	N/A	3,592,000	1,617	698,000	358	76,000
1960	4,836	8,395,000	3,085	4,426,000	N/A	N/A	198	46,000	N/A	N/A

N/A Not available.

a Figures include retirement, disability, and survivor pensioners.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data;" Ontario Ministry of Treasury, Economics and Intergovernmental Affairs; actuarial and annual reports.

The growth of membership in HOOPP, which has been more than four-fold since it was established in 1960, and in OMERS, which has increased by a roughly similar percentage since 1965, partly reflects the expansion of these plans to include new employer participants. For this reason, and also because they are relatively new plans, changes in the proportion of pensioners to active members are not of great significance.

By contrast, in the PSSF and TSF, which are long-established plans, and which together account for almost half of the total membership of public sector plans, the figures are more meaningful. In each case, the growth of active membership basically reflects the growth of employment; while growth in the number of pensioners reflects both demographic changes and changes in the provisions of the plans which have made it easier to qualify for a pension. The data show that in both plans, the percentage increase in the number of pensioners has been considerably greater than the increase in the number of active members. In the PSSF, the percentage growth in the number of pensioners since 1960 has been more than twice that of the number of active members (431 per cent versus 170 per cent), while in the TSF the number of pensioners has risen at a rate almost twice as fast as the number of active members (292 per cent versus 190 per cent). As a result, in the PSSF, the number of retirees as a percentage of active members increased from 5.7 per cent in 1960 to 14.2 per cent in 1977, while in the TSF it rose from 7.3 per cent in 1960 to 11.3 per cent in 1976.

Funds

Table 13 shows the size and annual growth of the various funds from 1965.

Table 13
Ontario Public Sector, Size and Growth of Funds, 1965 to 1976

	1965	1970	1971	1972	1973	1974	1975	1976	1977
					(Thousands of dollars)				
PSSF(a)									
Size of fund at start of year	173,329	326,722	369,163	432,031	506,489	594,082	685,032	794,042	941,604
Balance at end of year	197,059	369,163	432,031	506,489	594,082	685,032	794,042	941,604	1,128,654
Annual growth rate(b)	13.7	13.0	17.0	17.2	17.3	15.3	15.9	18.6	19.9
TSF(c)									
Size of fund at start of year	330,573	679,474	778,612	896,171	1,041,171	1,183,400	1,405,616	1,689,704	1,946,882
Balance at end of year	372,673	778,612	896,171	1,041,171	1,183,400	1,405,616	1,689,704	1,946,882	2,325,163
Annual growth rate (per cent)	12.7	14.6	15.1	16.2	13.7	18.8	20.2	15.2	19.4
Ontario Hydro(d)									
Size of fund at start of year	166,448	282,752	315,782	355,361	399,430	453,601	520,309	599,491	688,527
Balance at end of year	179,183	315,782	355,361	399,430	453,601	520,309	599,491	688,527	819,224
Annual growth rate (per cent)	7.6	11.7	12.5	12.4	13.6	14.7	15.2	14.8	19.0
OMERS(d)									
Size of fund at start of year	16,035	151,575	204,421	272,273	354,196	465,366	589,470	755,141	965,036
Balance at end of year	30,200	204,421	272,273	354,196	465,366	589,470	755,141	965,036	1,205,495
Annual growth rate (per cent)	88.3	34.9	33.2	30.1	31.4	26.7	28.1	27.8	24.9
HOOPP(e)									
Size of fund at start of year	35,349	113,046	133,965	164,511	200,217	244,565	299,260	368,990	469,429
Balance at end of year	46,244	133,965	164,511	200,217	244,565	299,260	368,990	469,429	595,324
Annual growth rate (per cent)	30.8	18.5	22.8	21.7	22.2	22.4	23.3	27.2	26.8

a Year ended March 31
b Net cash flow as a percentage of balance at end of period
c Year ended October 31
d Year ended December 31
e Year ended June 30 for 1965-1969 and December 31 thereafter; figures for 1976 obtained from actuarial report as at December 31, 1976.

Sources Public Accounts, Annual Reports, Ministry of Treasury and Economics

A number of plans, including OMERS, were unable to provide information on the amount of pensions paid in any year of the plan's operation, and only a few were able to provide data on the growth in pension payments since 1960. Data supplied by the latter show that increases since 1960 have been substantial; e.g., in the PSSF, pension payments rose from $4.4 million in 1960 to $65.4 million in 1977-78, while in the TSF payments increased from $8.4 million to $116.5 in 1977. These increases are basically the result of growth in the number of pensioners and in the earnings on which new pensions are based, rather than of changes in the provisions of the plan. They perhaps can be seen in context if they are related to current pensionable payroll. In 1977, PSSF pension payments were equivalent to 5.7 per cent of pensionable payroll, while in the TSF the figure was 7.0 per cent. In 1971 - the earliest date for which pensionable payroll figures are obtainable - the figure for the PSSF was 4.7 per cent, and the TSF figure was 5.6 per cent.

From information provided on number of pensioners and total amounts paid, it is possible to obtain some indication of how average pensions compare in the different sub-sectors. It must be added, however, that these averages reflect many factors and one cannot conclude on the basis of these figures, that one plan is "better" or "worse" than another.

Factors that may account for variations in average pensions are:

- Differences in the proportion of persons receiving retirement, disability, and survivor benefits in the various plans. (The averages include all pensions.)

- The proportion of long-service employees among those who qualify for pensions, which may vary according to the length of time plans have been in operation and also according to differences in termination rates, vesting provisions, opportunities to receive credit for past service, etc.

- Previous rates of increase in the number of new pensioners: plans which have a high proportion of recent retirees among their pensioner population will have higher average pensions - other things being equal - than those which have registered a slower growth in number of pensioners, since earnings have risen rapidly since the early 1970s, and also because those receiving survivor pensions could be expected to represent a relatively small proportion of the pensioner population.

- The average earnings of employees prior to retirement: plans which have a high proportion of managerial and professional employees among their members could be expected to have higher than average pensions.

- Differences in benefit formulas, including differences in cost-of-living adjustments.

Although it is not possible to isolate the effect of these different factors, in a few plans the impact of some of them is evident. For example, the highest average pension paid in the public sector in 1977 was to former members of the Legislative Assembly, which might be attributed to the fact that they have higher than average earnings and a much higher benefit rate per year of service than others, with no reduction for CPP. The relatively high average pension paid to teachers would appear to reflect three factors: they have higher earnings at the time of retirement than many other occupations; they tend to stay in the same job on a career basis and so acquire more years of continuous service; and their retirements have grown rapidly in recent years. At the other extreme, the low average pension paid by HOOPP can be attributed primarily to the relatively recent introduction of this plan, though the failure to make any cost-of-living adjustments in recent years has also held down the level of pensions compared with that of other plans.

While it is possible to draw some tentative conclusions from these figures, the danger in doing so is illustrated by figures provided by the TSF, WCB, and Hydro plans, which were the only ones to supply data on the number of persons receiving different types of pensions and the amounts paid. The table below shows the proportion of pensioners receiving retirement, survivor, and disability pensions in each of these plans and the average amounts paid. The most striking differences are the lower proportion of pensioners receiving retirement pensions in the Hydro plan, (we would assume this to be the result of slower growth in the pensioner population in recent years) and the much higher average retirement pension paid by that plan, which can be attributed mainly to the fact that Hydro employees have a long average pensionable service when they reach retirement age. The effect of such differences on average pensions is indicated by the fact that if the proportion of pensioners receiving each type of pension were the same in the Hydro plan as in the TSF, the average Hydro pension would be over $9,000 rather than $4,930.

Table 14
Ontario Public Sector, Proportion of Pensioners and Average Pension by Type of Pension, 1977

	Retirement		Survivor		Disability		Total	
	Per cent of pensioners	Average pension	Per cent of pensioners	Average pension	Per cent of pensioners	Average pension	Per cent of pensioners	Average pension
		(Dollars)		(Dollars)		(Dollars)		(Dollars)
TSF	83.0	6,601	9.6	3,413	7.4	4,403	100.0	6,139
WCB	76.7	4,376	21.9	2,248	1.4	3,002	100.0	3,891
Hydro	49.7	10,145	40.9	2,232	9.4	5,659	100.0	4,930

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Very few plans were able to provide data which would make it possible to trace changes in average pensions since 1960. Of those that did, only three were major plans: PSSF, TSF, and HOOPP. The figures for HOOPP cannot be meaningfully compared with those of other plans, since HOOPP was established in 1960. In the PSSF, the average pension rose from $1,435 in 1960 to $3,999 in 1977, which translates into a percentage increase somewhat lower than the rise in average earnings over this period. In the TSF the increase was greater - from $1,736 in 1960 to $6,139 in 1977. Analysis of the data shows that the increase in TSF pensions relative to those paid by the PSSF began about 1965 and has been fairly gradual since then, suggesting that it may be the result of changes in relative earnings over this period. However, as we have indicated, any conclusions based on comparisons of average pensions would have to be considered speculative. Future growth rates and their cost implications are considered in Chapter 5.

NOTES

(1) R.S.O. 1970, c. 387 as amended.

(2) R.S.O. 1970, c. 455 as amended.

(3) R.S.O. 1970, c. 324 as amended.

(4) R.S.O. 1970, c. 21 as amended.

(5) R.S.O. 1970, c. 241 as amended.

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Chapter 2

Plan Features

INTRODUCTION - THE ORIGINAL PUBLIC SECTOR PLANS

The first formal retirement arrangement for the organized civil service in this country came in 1870 for federal civil servants and was entitled, "An act for better ensuring the efficiency of the Civil Service of Canada, by providing for the superannuation of persons employed therein, in certain cases."(1)

It was some 50 years later that teachers(2) and public servants(3) in Ontario had formal pension arrangements and before the Power Commission Act was amended(4) to provide pensions for hydro workers. The next major thrust for large public sector plans did not come until the early 1960s when the need for portability caused an amalgamation of smaller plans covering hospital workers and municipal employees. The year 1960 saw the establishment of the Hospitals of Ontario Pension Plan(5), and in 1961-1962 legislation was passed to set up an OMERS umbrella plan for the employees of municipalities throughout the province.(6)

Of the 127 or more pension plans in the public sector today, there are five major plans: the Public Service Superannuation Fund (PSSF), Teachers' Superannuation Fund(TSF), Ontario Municipal Employees' Retirement System (OMERS), Hospitals of Ontario Pension Plan (HOOPP), and Ontario Hydro. Membership of the five major plans constituted 10.4 per cent of the Ontario labour force and 84 per cent of total active membership of plans in the Ontario public sector in 1977.(7)

Today, virtually all regular full-time employees are required to belong to their pension plan. Most plans specify immediate coverage (e.g., PSSF, WCB, and TSF) but some have various age and service requirements before joining. At Queen's University for example, membership is mandatory at age 30, while the University of Waterloo has a

compulsory membership age of 35. The few service requirements that exist do not exceed six months, presumably because that is long enough to cover the period of highest turnover, especially that of probationary employees. HOOPP requires participation after two years' service, although employees with six months' to two years' service may join. The TTC plan specifies six months' service as a condition of eligibility; the Ontario Hydro and Ontario Northland Transportation Commission (ONTC) plans require six months' service for selected employees. In plans that have age requirements, on the other hand, some employees may have several years of service before being eligible to join the plan. A number of university money-purchase plans (including those with "minimum guarantee" provisions) have such restrictions. These plans provide for matching by the employer of the individual employee's contributions, and permit the transfer of double the employee's contributions to another employer's plan or an RRSP if the employee terminates. The exclusion of younger employees from plan membership, therefore, can be explained by the high cost that the employer would incur if they were allowed to join and took advantage of the opportunity. In many defined benefit plans, by contrast, the employer makes little or no contribution on behalf of individual employees who terminate before they are 40 years of age, and younger employees who enter the plan help to hold down the employer's cost.

Uncovered Employees

In addition to those excluded because they do not meet age or service requirements, other employees are ineligible for pension coverage because of their lack of regular or permanent employee status. They are part-time, casual, or seasonal employees.

Part-time Employees

These employees work 24 hours per week or less. The Ontario Labour Relations Board uses a 24-hour demarcation to determine whether individuals should be members of bargaining units. This definition appears to be the basis for classifying employees as full-time for the purpose of establishing eligibility for pension plan coverage in HOOPP and the community colleges plan. In other plans a part-time employee is one who regularly works anything less than the normal full-time schedule.

Casuals

These are persons who work on an "as required" basis and include temporary replacements or persons hired for short-term projects. Casual employees may work on a full-time or part-time basis.

Seasonal Employees

These are people who work in jobs that are available only in a certain period each year, including jobs related to tourism or recreational

activities. Seasonal employees may be full-time or part-time and may be employed on a continuing or casual basis.

The TSF permits coverage of teachers who work a minimum of 20 days a year; the University of Toronto pension plan permits coverage of part-time academic employees who earn a specified minimum.(8) HOOPP and the Colleges of Applied Arts and Technology plan (CAAT) cover employees who regularly work more than 24 hours a week. The OMERS plan provides for coverage of employees "deemed" to be full-time, though this discretionary provision is used mainly to provide for coverage of non-teaching staff of boards of education who regularly work a 10-month year. Kingston General Hospital is unique in having a separate plan for designated part-time employees; however, there are only nine active members in the plan - a small percentage of the hospital's part-time employees.

In an attempt to identify how many employees are not covered by public sector pension plans, Dr. Kelly asked plan sponsors to provide:

a) the number of male and female employees who were eligible to be members of the plan as of December 31, 1977 but who chose not to join; and

b) the number of employees who were not eligible to become members of the plan.

They were also asked to provide a separate breakdown by sex for full-time and part-time employees.

Responses to these questions were of limited value because few employers were able to provide the requested information and because it was not clear how full-time and part-time employment were defined by the respondent or what the reasons were for the exclusion of full-time employees. The provincial government reported that a total of 5,231 full-time employees and 4,392 part-time employees were not covered by the PSSF, figures which can be related to a total active membership of 76,712. In this case it appears that part-time employees are persons who regularly work fewer hours per week than the scheduled full-time number; excluded full-time employees are mainly persons who work on a seasonal basis. Ontario Hydro reported a total of 976 uncovered full-time employees and 41 part-time employees. The number of uncovered full-time workers is equivalent to about five per cent of the plan's active membership; presumably it reflects both the exclusion of probationary employees and the fact that members of the Office and Professional Employees International Union are ineligible until they have been employed for 6 months. In the TTC, which also excludes employees from plan membership until after they have been employed for 6 months, 241 male and 32 female full-time employees were not covered by the plan, the combined figure representing about 3 per cent of the total active membership. The effect of age requirements for membership

was evident in figures provided by York University, which showed that somewhat more than half of the university's full-time employees were not covered by the university plan. Membership in the plan is not compulsory until age 30, though employees may elect to join between 25 and 30. It was not possible in this case - or in the case of any other plan which provides for optional membership up to a certain age or length of service - to identify the proportion of eligible employees who chose to join the plan.

The figures for teachers who taught less than 20 days a year in 1977 were not available. No information was obtained about employees not covered by HOOPP or by other hospital plans; the number could be expected to be larger than in other sub-sectors, partly because full-time employees are not required to join until after they have been employed for two years and also because there is a large number of regular and casual part-time employees in hospitals. Some indication of the gap in coverage may be obtained by comparing active plan membership in the Ontario health sub-sector in 1977 - 64,046 - with employment figures reported by Statistics Canada which showed that, as of December 31, 1975, there were 96,596 full-time and 23,557 part-time personnel employed in Ontario public hospitals.

Relatively few concerns were expressed about eligibility for membership in public sector plans. The issue of eligibility was primarily one of covering part-time workers. For example, this was a primary concern of the Ontario Nurses Association since none of the plans under which nurses are covered allows part-time employees to join. While part-time nurses receive a monetary allowance in lieu of fringe benefits (vacations, paid holidays, sick leave, etc.) this can be as little as 6 per cent of salary and cannot be said to represent compensation for loss of pension coverage. The ONA recommended that regular part-time employees be provided, through legislation, with the opportunity to participate in pension plans after a minimum hourly service requirement. A similar recommendation was made by CUPE, noting that the ERISA legislation in the United States defined part-time employment on the basis of number of hours worked. Also critical of the fact that part-time employees are not eligible for plan membership was the York University Faculty Association. Many part-time faculty members work year after year, and many who work full-time are classified as part-time because they work in more than one department.

The only reason advanced for the exclusion of part-time employees from pension plans was that it would be administratively difficult to cover them, especially in final average plans. However, provisions established under OMERS and the TSF indicate that coverage is feasible, even under final average plans. OMERS gives credit for years of service on a pro rata basis, with pensionable earnings calculated as an annualized figure of the employee's contributory earnings. Thus, if a person worked regularly an average of 50 per cent each year to age 65, he or she would receive a pension equal to half the amount which would have

been earned for full-time service. In the TSF, part-time teachers accrue pension service on the basis of the ratio of their earnings to those of an equivalent full-time teacher. If earnings are not annualized, this could result in a significant drop in pension benefits for a teacher who switches from full-time to part-time employment in the years prior to retirement. The OMERS approach appears to be the more equitable one, although it might be administratively troublesome and costly without some minimum service requirement in each year of employment. This provision appears to have been used mainly for non-teaching employees in schools who work a ten-month year, and for elected officials.

Compulsory Membership

The general view seemed to be that compulsory membership is necessary to ensure that employees do have adequate protection and to assure the financial stability of pension plans. The OTF proposed that supply teachers be given the option of joining the TSF rather than being required to contribute. Voluntary membership is being sought by faculty in some universities, while one university group confirmed that there was some questioning, especially among younger employees, about the need to belong to pension plans.

BENEFITS

Retirement Benefits

With respect to benefit design, the five major plans have always been defined benefit plans, although with somewhat different formulas. The Teachers' and PSSF were both final average earnings plans, with the Teachers' benefit being 1/60 of the average salary for the last 10 years multiplied by the number of full years of service. Until changed by legislation in 1947, the PSSF pension was calculated as 2 per cent of the average of the last three years' salary multiplied by years of service (to a maximum of 30). The Hydro plan used an average best earnings formula and was 1/80 of the average salary in the highest five consecutive years multiplied by service, with a minimum pension of $365 per year. HOOPP and OMERS were both career average earnings plans set at 2 per cent of contributory earnings multiplied by years of service.

Today, some of the smaller plans are money-purchase, but these cover only 7,218 members. The Toronto Transit Commission has a career average plan for its 8,048 members which is updated from time to time. Otherwise, the incidence of the career average formula is negligible. Some university plans are a combination of money-purchase and final earnings.(9)

Although there is considerable diversity in the retirement benefits paid by public sector plans, variations among the largest plans are

relatively minor. The PSSF, WCB, OMERS, HOOPP, TSF, Hydro, and CAAT all provide a benefit of 2 per cent of final average wage or salary for each year of service, less CPP offset, to a maximum of 70 per cent. The TSF and CAAT plans use the best seven years' average salary; OMERS, HOOPP, PSF, and Hydro, the best five years' average wage or salary. The WCB plan bases benefits on the best three years' salary for service prior to 1966. WCB is exceptional in permitting overtime payments to be included in the calculation of final salary.

A number of other plans provide benefits much the same as those referred to above. For example, the Ontario Northland Transportation Commission (ONTC) has a benefit similar to that of Hydro, except for a slightly higher CPP offset; and a few university plans have benefits of 1.3 or 1.5 per cent of final average salary up to the YMPE and 2 per cent above. Most of the others may be classified as "significant variations." Queen's University and six other universities have money-purchase plans which contain a minimum guarantee of 1.3 per cent of final 5-year salary up to YMPE and 1.75 per cent above. The Ontario Cancer Institute plan is another which follows this approach. The University of Toronto, McMaster University, and the University of Guelph provide benefits which are lower for years of service prior to age 45 than following it. University plans show other variations too. In some, the combined private plan-CPP benefit is a higher percentage of earnings up to the YMPE than above it, while in others the reverse is true. Again, in contrast to general practice, most apply the CPP offset for years of service prior to 1966. The McMaster University plan for hourly-rated employees is the only non-contributory plan in the public sector. It provides a flat-rate benefit per year of service. Notable variations among non-university plans include the updated career average benefits provided by the TTC plan and a few of the closed municipal plans.

Adjustments for Inflation

A majority of those receiving pensions from public sector plans have received some kind of pension adjustment to compensate for increases in the cost of living in recent years. Generally, corresponding adjustments have also been made to deferred pensions of terminated employees.

Although in many cases cost-of-living increases have been made on a regular annual basis, such increases are provided for automatically in only a few cases, most notably in plans covered by the Superannuation Adjustment Benefits Act. Plans covered by that act, which provides for increases up to a ceiling of 8 per cent in any year, are the PSSF, TSF, Ryerson Pension Plan, and the Caucus Employees Retirement Plan. The cost of adjustments is contributed to equally by employees and employers, the current contribution rate being one per cent of salary from each.

Employees in plans which have granted post-retirement pension adjustments account for 85.1 per cent of plan members in the Ontario public sector, most of the remainder being members of HOOPP.

Table 1 gives the number of pensioners who received cumulative percentage increases in the ranges shown for the years 1971-78. The percentage increases may be compared with an increase of 65 per cent in the Consumer Price Index over the period 1970-1977.

Table 1
Ontario Public Sector Percentage Increases in Post-Retirement Pensions, by Sub-sector and Percentage Range, 1971-78

Sub-sector	Range 6-20%	20-35%	35-46%	Flat dollar increase	Total
Provincial government	-	358	16,376	-	16,734
Municipal	1,569	2,172	15,266	765	19,772
Health	-	374	-	-	374
Education	1,456	674	19,197	-	21,327
Provincial utilities	-	4,117	-	920	5,037
Legislative assembly	-	76	-	-	76
Total	3,025	7,771	50,839	1,685	63,320

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

The cumulative percentage for each plan is given in Table 2, with an indication as to whether adjustments have been on a regular annual or an ad hoc basis. Some plans have made both regular annual adjustments and additional ad hoc supplements from time to time. Until 1975, inflation adjustments in the public sector were usually made on an ad hoc basis, though in many cases adjustments were regular and expected. In the case of Hydro, for example, ad hoc adjustments were made from 1971 to 1975 to the same extent as for the PSSF. Since that time adjustments have been made each year, at half the rate of adjustment to the PSSF. Some plans, notably HOOPP, have had no inflation adjustment on any basis.

Table 2
Ontario Public Sector Post-Retirement Pension Increases, by Sub-sector, Cumulative Increase and Type of Increase, 1971-78

Sub-sector	Cumulative increase	Regular annual	Ad hoc
	(Per cent)		
Provincial government			
PSSF	46	x	
WCB	20		x
Municipal government			
OMERS	38		x
Metro (employees)	38		x
Toronto (employees)	35.7		x
Toronto firemen	31		x
Borough of York	15		x
Hamilton-Wentworth	15% + flat increase from 1976		x
TTC	15		x
Ottawa/Carleton Transportation Commission	$468 average + 24%	x	x
London Transportation Commission	$152		x
Health			
Ontario Cancer Institute	24		x
Hospital for Sick Children	30		x
Education			
TSF	46	x	
Ryerson Polytechnical Institute	40	x	
CAAT	26		x
Universities:			
Queen's University	25	x	x
Trent University	16	x	
University of Ottawa	16	x	
York University	16	x	
Wilfrid Laurier University	16	x	
University of Western Ontario	15	x(optional)	x
Laurentian University	24	x	
McMaster University	11.4	x	
Carleton University	16	x	x
University of Toronto	6		x
Waterloo University	38	x	
Guelph University	21		x
Windsor University (academic)	16	x	
Provincial utilities			
Ontario Hydro	28		x
Ontario Northland Transportation Commission	12% + $180		x
Legislative assembly			
Legislative assembly	25		x
Caucus employees	N/A	x	

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

The percentage of pensioners who received post-retirement adjustments in each of the sectors is as follows:

Provincial government	99.1%
Municipal government	98.8%
Health	4.3%
Education	97.7%
Provincial utilities	100%
Legislative assembly	100%

The public sector study by Dr. Kelly showed that post-retirement adjustments were some of the most frequently-discussed issues, much of the discussion arising from the lack of automatic adjustments in OMERS, HOOPP, the Ontario Hydro Pension Plan, and most university plans. Criticism was strongest in relation to HOOPP. Whereas OMERS, Ontario Hydro, and a number of universities have made ad hoc adjustments in recent years, HOOPP has not made any adjustments.

It was the view of employee groups that formal escalation should be incorporated into HOOPP, OMERS, and the other public sector plans that do not presently have such provisions. It was suggested by OCUFA and the University of Toronto Faculty Association that, for universities, the most promising mechanism available for realistic pension indexing was the Superannuation Adjustment Benefits Act. Plans eligible to participate under SABA are those for which funds for the plan come directly or indirectly from the Consolidated Revenue Fund of the Province of Ontario. If universities were eligible, this could provide a province-wide link between university pension plans and others such as the Teachers' Superannuation Fund.

Only a few of those advocating the indexing of post-retirement benefits expressed definite views on the question of how this should be financed. The OTF was strongly opposed to a fully-funded approach; it was optimistic that the rate of inflation would decrease, in which case the plan would be overfunded. OPSEU opposed a type of funding recommended in the recent Cofirentes Report in Quebec, under which excess interest earned by the fund assets would be used to finance adjustments. More acceptable approaches, said the union, would be a pay-as-you-go system or one based on indexed government bonds, as outlined in recent studies by Professor Pesando. The University of Guelph Staff Association suggested a novel way of funding which would involve graded contributions by active members based on age and salary, with a maximum of 2.5 per cent of salary for people close to retirement and contributions by retirees of 1 per cent of their pensions.

Commenting on the issue of indexing from an employer standpoint, Mr. W.G. Johnson of Ontario Hydro stated that the organization he represented had close links with the private sector, and a contractual commitment could have a longer-run effect on the cost of power. There was also a question of principle involved, since in the corporation's

view the unions with which it bargains on pensions do not represent retired workers. The Ontario Hospital Association, in a submission to the Commission, stated that the cost of indexing is more than it has been able to afford. The OHA has held to its long-term conviction that proper funding should be maintained, and has resisted the attraction of trying to gain short-term popularity by adding benefits on a pay-as-you-go basis.

The Ontario Municipal Retirees Organization (OMRO) commented on a recent change in policy by OMERS with regard to pension adjustments. Although OMERS had made regular ad hoc adjustments in recent years, pensioners recently received an announcement from the board stating that it had recommended to the government that the 3 per cent increase in pensions effective in March 1978 be the last increase payable unless some other means of providing the funds to pay pension increases were developed. OMRO stated that this was the result of the recent switch from an updated career average to a final average plan. Prior to that change, OMRO had expressed its concern to the OMERS administration that a move to a final earnings plan might jeopardize the ad hoc increases which had been awarded to pensioners; but it had been repeatedly assured that its fears were groundless.

The funding of indexing is discussed in Chapter 3.

Survivor Benefits

Survivor or death benefits are provided throughout the public sector and have been available from the outset in the five major plans. Survivor or death benefits may be paid before or after retirement. Where an employee dies before retirement and before vesting, the general practice is that the employee's contributions are returned with interest. The PSSF and the University of Toronto are exceptions in that they provide for a refund of twice the employee's contributions if the employee had eligible dependents. Other exceptions are Queen's University, which provides for a return of twice the member's contributions plus interest, and the University of Western Ontario which provides for a return of the member's contributions plus the employer's contributions.

Where an employee dies after vesting and before retirement, the most common practice is to provide a benefit of 50 per cent of the accrued pension where there are survivors (eligible spouse or eligible dependent children) and to refund the member's contributions with interest where there are no survivors. OMERS is an exception; it provides a survivor benefit of 50 per cent of the accrued pension to the spouse, and 10 per cent for each child under 21 to a maximum of 25 per cent. Alternatively, the surviving spouse may elect to take a refund of contributions instead of a pension. Others which show variations are the Toronto Fire Department Superannuation Plan and the Metro Toronto Police Plan, which provide half the accrued pension if the spouse is the

beneficiary, or if the spouse is not the beneficiary, a return of the member's contributions with interest plus $100 for each year of service. A somewhat similar provision exists in the Toronto Civic Employees Pension Plan.

In the case of death after retirement, the general policy is to provide half the pension to specified survivors. A few plans provide a joint and last survivor option, that is, a pension (annuity) payable after the death of the pensioner or annuitant during the life of a surviving spouse, or an option under which the pension is guaranteed for a certain number of months. When there are no eligible survivors, the policy in most cases is to grant a return of the member's contributions less pension payments made.

Survivor benefits provided through pension plans have to be considered in conjunction with benefits available to employees through group life insurance plans. Nearly all public sector employers require employees to have a certain amount of employer-paid or employer-subsidized life insurance; most offer additional voluntary insurance, usually employer-subsidized. In a few cases the amount of compulsory insurance is a specified dollar amount: for example, $2,000 for Toronto Civic and Metro Toronto employees; $5-15,000, depending on service, for TTC employees; $9,000 for unionized employees of ONTC. More commonly it is a multiple of salary, ranging from 75 per cent of salary in the PSSF to as much as three times salary in some school boards and municipalities. Occasionally, the amount of compulsory insurance varies with occupational or marital status; e.g., the Hospital for Sick Children provides life insurance of 1-1/2 times salary and three times salary for department heads and above, while ONTC provides one times salary for single employees and twice salary for married employees.

The amount of additional voluntary insurance available to employees ranges from one to three times annual salary (occasionally subject to a maximum dollar amount) but in no case does the amount of combined compulsory and voluntary insurance exceed four times salary. Most often, the additional insurance is subsidized by employers, in amounts ranging from 50 to 80 per cent. However, there are notable exceptions. In the PSSF, where employees may opt for additional insurance of up to three times salary, the premiums are employee-paid. Employees of the WCB pay the cost of additional voluntary insurance of up to two times salary, based on their age when they enter the plan. The cost of the plan recently introduced for hospital employees will also be borne by those who elect to participate. Some other variations are: the Ontario Hydro pension plan, in which additional employer-subsidized insurance includes an optional paid-up portion of up to two years' salary; the Queen's University plan, which offers employer-subsidized insurance of up to three times salary for those with dependents, and one times salary for single employees; and the McMaster University plan, which includes an option for married employees of one times salary, plus survivor income of 25 per cent of salary and 5 per cent for each dependent child

up to three. (The latter's pension plan provides only for a return of the member's contributions plus interest in the case of death prior to retirement).

The amount of life insurance available to employees following retirement is considerably lower. In some cases, no insurance is provided, and in nearly all other cases the amount is nominal. The PSSF provides insurance of $2,000 during the first year of retirement, $1,750 in the second year and $1,500 thereafter. The WCB provides $2,000 for employees hired prior to 1972; HOOPP provides a similar amount for those with at least 10 years' service ($200 per year of service for others). For teachers, the amounts vary among school boards. There are variations too among municipalities, with a maximum of $5,000. Ontario Hydro, which includes paid-up insurance among the options available to employees, has an average paid-up policy of $10,000-$12,000.

Disability Benefits

Public sector plans generally provide disability benefits which have been a feature since the beginning. Final average earnings plans and updated career average plans in the public sector generally provide for payment of the full accrued pension in case of total disability if the employee has at least 10 years' service. Exceptions are OMERS, which has no service requirement for this benefit, and HOOPP, which requires that the employee have 10 years service and be age 45 or more. Under HOOPP the accrued pension is reduced by 3 per cent for each year below age 62. OMERS and TSF provide pensions for partial disability. The Teachers' plan provides that, when a contributor is disabled for teaching purposes but not for employment in other professions, the pension is reduced by 2.5 per cent per year for each year below age 65 to a maximum reduction of 25 per cent.

The use of disability provisions in public sector pension plans is decreasing as groups become covered by long-term disability insurance - frequently with a provision that pension credits continue to accrue while the employee is disabled. Generally, the long-term disability benefit is a fixed percentage of salary: PSSF 66-2/3 per cent; WCB 66-2/3 per cent; HOOPP 60 per cent; and Hydro 60 per cent. Queen's University provides a benefit which is a declining percentage of salary: 65 per cent on the first $7,200; 55 per cent on the next $10,800 and 40 per cent on the balance of annual salary.

Benefit Levels

Only a few organizations proposed that improvements be made in the formula used to determine pension levels at retirement. The Ontario Teachers' Federation recommended that teachers' pensions be based on the best 5 years' earnings, rather than the best 7, which would bring the formula into line with that used in the PSSF, HOOPP, OMERS, and Hydro plans. The Ontario Provincial Firefighters' Association proposed that

the OMERS formula, as it relates to firefighters, be changed from 2 to 2.33 per cent of final average earnings per year of service because more firefighters are retiring at age 60 without earning a 70 per cent pension. The OPFA's proposal that the current maximum pension be provided after 30 years' service also implies a 2.33 per cent benefit per year of service. The University of Toronto Faculty Association indicated that it would seek changes in the university plan's formula which provides lower pension benefits in respect of service up to age 45 than for later years. None of those indicated that they would want to be covered by a different type of plan (money-purchase or defined benefit) than that to which they currently contribute.

Improvements in the level of survivor benefits were recommended by several organizations and individuals. The Quarter Century Club of the Ontario Public Service, noting that the 50 per cent benefit paid to a surviving spouse had proved inadequate for some of its members, recommended that an option be made available whereby individuals could draw less than 100 per cent of their pension entitlement on retirement in order that the surviving spouse could receive a higher percentage. OPSEU also criticized the 50 per cent formula, as did Mr. C.G. Millard, Manager of Personnel Services, Northern College of Applied Arts and Technology. Mr. Millard recommended that the level be two-thirds of the pension instead of one-half and that the OMERS provision which reduces the survivor's pension if the spouse is more than 10 years younger than the plan member be eliminated.

An opposing view was expressed in a submission by the Management Employees Group. The MEG commented that improved survivor allowances would impose an additional financial burden on the PSSF, that many single contributors would not favour such a change, and that improved survivor protection could be achieved by a life insurance program which would be more flexible to individual needs without adverse impact on the PSSF.

Improved survivor benefits were a concern of the OPFA, which recommended that an insurance fund be set up to pay $50,000 to the survivor of a firefighter killed on duty, in addition to other benefits. Ideally, the Firefighters' Association would like this benefit to be brought in through federal legislation, as in the United States.

The broader question of whether survivors' and disability benefits should be part of a pension plan, rather than being provided through separate insurance plans, was raised with a number of groups during the discussions with Dr. Kelly. The general view seemed to be that since single employees may not benefit equally from these provisions, and since they do not ensure an adequate level of benefits, especially for younger contributors and their dependents, there might be advantages in providing one or both forms of protection through group insurance programs. The OTF said that before this step was taken it would like a body such as the Pension Commission of Ontario to look into it care-

fully. Both OPSEU and MEG noted that there was no survivor benefit for death after retirement outside the pension plan, so this would probably have to remain part of the plan in order to meet that need.

Maximum Benefits

Most public sector employees in Ontario are covered by pension plans which provide a maximum retirement benefit of 70 per cent of the best 5 or 7 years' salary, less a CPP offset for service since 1966. For two reasons, neither of these formulas results in a uniform or constant percentage of salaries at the time of retirement. First, the pension as a percentage of the employee's salary just prior to retirement will depend on the general rate of increase in salaries in the previous 5 or 7 years determined basically by the rate of inflation) and on whether the increases received during this period were higher or lower than average. The significance of this may be illustrated as follows: If we assume annual salary increases of 6 per cent during the five years prior to retirement, the pension will be approximately 62 per cent of the final salary compared with 70 per cent of the final 5-year average; whereas if we assume salary increases of 10 per cent, the percentage of final year's salary will be 58 per cent. In a plan providing a maximum pension of 70 per cent of final 7-year average salary, the corresponding percentages would be 58 per cent and 53 per cent. The second reason for difficulty in relating these maximums to final salaries is that, in addition to variation between plans in the CPP offset formula, the amount of offset increases each year, mainly because it applies to an increasing number of years of service but also because of increases in the YMPE. For a person retiring in June 1978, the CPP offset under the PSSF formula would amount to $816 a year, which is equivalent to 35 per cent of the maximum CPP pension. In the TSF, the offset would amount to $910; in HOOPP the reduction would be $700.

Two illustrations serve to give a rough indication of the amount of pension income that would be received from the PSSF and CPP by someone retiring in 1978 who had 35 years' pensionable service. It is assumed in the first case that the individual's salary at retirement was $12,000, with a final 5-year average of $10,000. In the second case, the figures are $24,000 and $20,000 respectively:

Final year salary	$12,000	$24,000
Final 5-year average salary	10,000	20,000
Basic PSSF pension	7,000	14,000
PSSF pension after CPP offset	6,184	13,184
CPP pension	2,333	2,333
Total pension	8,517	15,517
PSSF pension after CPP offset, percentage of final year salary	51.5%	55.0%
Total pension as a percentage of final year salary	71.0%	64.7%

As the figures show, the PSSF pension less CPP offset represents a slightly higher percentage of final salary for the higher-paid employee, but the combined pension amounts to a higher percentage for the lower-income employee. If OAS payments were added to these figures (e.g., $164.74 a month) the differential in favour of the lower-paid employee would be even greater: 87.5 per cent compared with 72.9 per cent of final salary.

The CPP offset will eventually equal the amount of CPP pension paid. If that were the situation at the present time, total pension income (including OAS) in the above cases would amount to 74.8 per cent of final salary for the lower-income employee and 66.6 per cent for the higher-income employee. In these plans, however, integration is related in effect to that portion of the individual's service while the CPP was in existence - that is, from 1966. Offsets, although varying according to the different formulas, have relatively less effect where a retiree has a substantial amount of pre-1966 pensionable service. Those who have retired in recent years and those retiring for some years to come enjoy an advantage from this phasing-in of integration.

Probability of Obtaining Maximum Pension

The data on average benefit levels and pensionable service indicate that very few employees are likely to receive the maximum pension. There are various reasons, including changes in employment, permanent or temporary withdrawal from the labour market, and early retirement, all of which come into the category of "terminations." Although it is impossible to estimate with any precision the proportion of newly-hired employees who can expect ultimately to receive the maximum pension, a rough indication may be gained from the fact that, with an average annual termination rate of 4 per cent, only one out of four employees hired up to age 30 could expect to accumulate 35 years of service. Assuming a normal retirement age of 65, no one hired after age 30 would be able to do so. Data on pensionable service by age indicate that only a small proportion of those still employed at ages 60-64 - the age group in which average pensionable service is highest - could <u>potentially</u> receive the maximum pension (see Volume II, Chapter 8). In the provincial government service, no more than one out of nine employees in this age category would be able to do so. In education and provincial utilities the proportion is about one out of four. It is impossible to determine how many who cannot qualify for the maximum pension with their current employer might have pension income from previous employment elsewhere, or might at some point in the past have received a refund of contributions which, if invested, would have generated a retirement income.

As we have seen, final average plans favour not only those with long service but those who are employed up to retirement age. This result may be contrasted with the approach in money-purchase plans, in which the employer generally contributes an amount equal to that con-

tributed by each individual employee. If a vested employee terminates and double contributions are transferred to an RRSP or other plan, a return will be obtained which, on average, will be as great as if it remained in the fund to retirement age. While such plans provide lower benefits per dollar of contributions than final average plans, more terminating employees are likely to benefit from the plan.

Integration

In the PSSF, WCB, and OMERS, the benefit offset for CPP is .7 per cent of the final three-year average YMPE for each year of service since 1966. The offset formula in the TSF and CAAT plan is .7 per cent of the final year's YMPE. HOOPP has a CPP reduction of .6 per cent of the final three-year average YMPE, while Hydro reduces the benefit by .625 per cent of the final five-year average YMPE.

Those who expressed opinions on integration were opposed either to the principle of integration or to specific ways in which integration had been effected.

The OTF stated that teachers were opposed to integrating the CPP with the TSF but that it had been forced on them. However, the federation was not sure that teachers would now accept a stacked plan which would require a contribution rate of 6 per cent for the TSF plus 1.8 per cent or more for CPP plus 1 per cent or more for the escalation fund.

OPSEU maintained that de-integration would be advantageous to the low-income earners. At present, their contributions to the public sector plans only provide them with what they would be getting anyway from CPP. De-integration, the union said, should be done in a step-by-step fashion to minimize shocks to the fund.

Mr. A.W. Reeve of OMERS also expressed the view that employer pension plans should not be integrated with the CPP. The present system of integration, with the YMPE rising rapidly, was unfair to most employees. He added that because of the confusion about the costing of pension plans and the difficulty of explaining to employees their integrated entitlement, public sector employees might consider non-contributory pension plans with a flat benefit on top of CPP pensions.

CUPE was primarily concerned with the elimination of benefit step-rate and benefit offset methods of integration, an aspect which is discussed in detail in its brief to the Commission. More generally, it was noted that increases in CPP contributions could be expected to lead to a re-examination of the whole integration question by employers and unions, and possibly to an increase in the number of stacked plans.

The Ontario Confederation of University Faculty Associations (OCUFA) stated that the present integration formula created many prob-

lems, chief among them the fact that people do not understand how integration works. Therefore, the University of Western Ontario has stacked plans. University plans, according to OCUFA, should have been stacked to start with.

Comments on the subject of integration were also made by the Ontario Provincial Police Association which stated that it had been and still was in favour of stacking; by a number of employees of the Ministry of Health, who noted that CPP benefits were higher than PSSF benefits per dollar of contribution; and by the University of Guelph Staff Association, which was critical of the method of integration used for the staff pension plan. The association pointed out that the retroactive integration of benefits prior to 1966 was a windfall to the employer and contrary to the intention of the CPP.

Several problems arise from the integration of final earnings plans with the CPP.

1. Employees contribute a higher amount to their own plan on earnings above the YMPE than on earnings up to that level throughout their contributory period, but reductions in benefits for years of service since 1966 are based on the YMPE at the end of the contributory period. As noted by the CPP Advisory Committee, this has led to employee complaints that although they contributed to their own plan at the full rate of earnings during the early years of the CPP, their pension benefits with respect to these years of service are at the full rate only on earnings above a much higher YMPE at the time they retire. Because of the rapid catch-up increases in the CPP in recent years, a growing number of employees appear to have become concerned about this point.

2. Employees perceive the CPP benefit to be relatively more generous that that of the employer's plan. This is a result of different funding approaches. The public sector plans are funded plans, with a fixed ratio of benefits to contributions, while the CPP is a partially funded plan with a decreasing ratio of benefits to contributions. To date, the differences in benefit/contribution ratios have been substantial. For example, while the ratio of benefits to contributions in the PSSF amounts to .2968 on salary up to the YMPE and .3333 on salary above it, the CPP, for persons retiring in 1976 with ten years of service, provided a benefit equal to 1.5432 times contributions. This difference, however, will gradually diminish as integration matures, even if there is no increase in the CPP contribution rate. After 40 years, when the CPP is fully mature, the ratio of benefits to contributions will be .3858.

3. Employees perceive discrimination in benefits from the employer's plan in favour of the higher-paid employees. (In fact, the combined employer - CPP pension is a higher percentage of earnings for lower income employees than it is for those with higher earnings, and OAS makes the percentage differential wider still). A related point, although one that is not actually a result of integration, is that low-income employees, in contributing to an employment plan, are paying for a benefit which they could get from GIS or GAINS if they had no employment pension income.

4. Methods of integration are another problem area. There is considerable variation in public sector plans in the method of CPP offset, which affects the benefits which employees receive.

5. Possible future changes in the CPP would cause other problems. An increase in the CPP contribution rate would require higher contributions from both employers and employees without any corresponding increase in the total benefits. Since this would amount to a higher percentage of salary for those with earnings up to YMPE than for those with higher income, it might raise further questions about the apparent discrimination in favour of higher-paid employees in the employer's plan. An increase in CPP benefits, with or without any increase in contribution rates, might raise further questions about the role of private pension plans, especially for lower-income employees.

Although several employee groups indicated that integration was imposed on them against their wishes, there does not appear to be any general desire for "stacking" among public sector unions. Stacking certainly would solve the problems to which we have referred. However, it would mean higher contributions from employers and employees, which employers presumably would be reluctant to assume unless there were an offsetting reduction in some other component of compensation. It would be costly, therefore, for employees - more costly still if CPP contribution rates were raised. It might also leave employees with more pension benefits than they really need.

An alternative approach, favoured by some unions, would be to "de-integrate" or "de-couple" the plans. This would involve keeping the employer plan and the the CPP quite separate, but with no change in the total amount of contributions and benefits paid under each plan. All employees would contribute an equal percentage of salary to the employer plan and would get the same ratio of benefits to contributions. The effect of this would be to provide a somewhat higher combined CPP-employer plan benefit for lower-income employees than would be the case under an integrated plan, and a lower combined benefit for those with higher earnings.

RETIREMENT AGE

While age 65 is the normal retirement age in Ontario for 91 per cent of members in the private sector, it is the normal retirement age for only 51 per cent of public sector members. Although retirement pensions are paid at age 65, if the vesting conditions are met (usually 10 years' service) normal retirement may occur at other ages provided the retirement conditions are met. Normal retirement age is more properly considered as the earliest age at which one may receive an actuarially unreduced pension. This age is often earlier than age 65.

Provincial Government

PSSF and WCB provide for unreduced retirement benefit prior to age 65 when age plus service equals 90 points, and at age 60 with 20 years of service.

Municipalities

OMERS provides early retirement prior to age 65 in supplementary plans: one plan provides for an unreduced pension at age 60 and requires a contribution one per cent more than the basic plan. A second plan provides for retirement on an unreduced pension at age 50 after 30 years of service and within 10 years of normal retirement, at an additional contribution of 2 percentage points higher than the basic rate.

Employees may negotiate membership in these plans with each individual municipality as well as the amount of the employer subsidy. Generally firemen and policemen have taken advantage of these plans. The closed municipal plans also provide for early retirement. A recent arbitration award for Metro Toronto Police states that, on average, Metro Toronto Police retire at age 54.3 with an average service of 29.9 years. The normal retirement age for TTC employees is age 60, but employees may retire on an unreduced pension after 30 years of service with no age requirement.

Actuarially Reduced Pensions

Early retirement with actuarially reduced pensions is generally available to those who retire within 10 years of normal retirement age and do not meet the requirements for unreduced pensions. The reduction is normally about 5 per cent for each year by which retirement precedes the normal retirement age. Ontario Hydro is an exception in that the plan provides for a maximum reduction of 25 per cent at age 55 if the employee has 15 years of service. The TSF is also an exception to the general practice since the plan reduces the pension by 5 per cent for each year below age 62 for persons who are at least 55 years of age and have 30 years of service.

Actuarial reduction of pensions in case of early retirement is based on the following factors:

(i) longer life expectancy at younger ages;

(ii) loss of interest on payments made between the early retirement date and the normal retirement date.

The amount required to purchase an annuity at ages 55 to 65 inclusive is shown in Tables 3 and 4. Each table uses GAM 71 mortality (1971 Group Annuity Mortality table) but Table 3 uses 3-1/2 per cent interest while Table 4 uses 7 per cent interest. These tables indicate that an approximate reduction of 5 per cent per year is appropriate for lower interest rate assumptions, while 6 per cent reductions (or 1/2 per cent per month) are more appropriate for higher interest rate assumptions.

Table 3
Reduction Factors Based on 3-1/2 Per Cent Interest and GAM 71 Mortality

Male retirement age	Actuarial value of $1 annual pension	Amount of annual pension bought by $12.097	Actuarial reduction in pension compared to pension at 65	5 per cent reduction per year of early retirement
	(Dollars)	(Dollars)	(Per cent)	(Per cent)
65	12.097	1.000	0.0	0.0
64	13.152	.920	8.0	5.0
63	14.264	.848	15.2	10.0
62	15.433	.784	21.6	15.0
61	16.660	.726	27.4	20.0
60	17.948	.674	32.6	25.0
59	19.296	.627	37.3	30.0
58	20.708	.584	41.6	35.0
57	22.183	.545	45.5	40.0
56	23.724	.510	49.0	45.0
55	25.333	.478	52.2	50.0

Source Civil Service Commission.

Table 4
Reduction Factors Based on 7 Per Cent Interest and GAM 71 Mortality

Male retirement age	Actuarial value of $1 annual pension	Amount of annual pension bought by $9.630	Actuarial reduction in pension compared to pension at 65	6 per cent reduction per year of early retirement
	(Dollars)	(Dollars)	(Per cent)	(Per cent)
65	9.630	1.000	0.0	0.0
64	10.721	.898	10.2	6.0
63	11.909	.809	19.1	12.0
62	13.201	.729	27.1	18.0
61	14.603	.659	34.1	24.0
60	16.123	.597	40.3	30.0
59	17.770	.542	45.8	36.0
58	19.551	.493	50.7	42.0
57	21.476	.448	55.2	48.0
56	23.555	.409	59.1	54.0
55	25.799	.373	62.7	60.0

Source Civil Service Commission.

Submissions

Improved early retirement provisions were proposed by the OPPA, the ONA, the OTF, and the MEG. In support of its recommendation of an earlier retirement age for policemen, the OPPA referred to the stressful nature of police work and to the fact that the average OPP officer is expected to work at age 55 at the same speed and rate as a 25-year-old. It also noted the retirement age for police officers was lower than that for other public servants in nine major plans surveyed across Canada.

The OPPA recommended that:

(i) the current maximum pension should be available to police officers after 30 years of service, rather than 35;

(ii) the normal retirement age should be 25 years of service or age 55 + 10 years of service; and

(iii) the early retirement requirement should be 10 years of service, with a reduction of 5 per cent for each year retirement precedes age 55 or 25 years of service (whichever is less).

Although most policemen can retire on full pension at around age 55 to 57, not all take advantage of the opportunity. The OPPA suggested that some probably continue to work to stay ahead of inflation. In other cases, they stay in order to increase their pension entitlement. Perhaps more important was that, not being trained for other employment, they tend to stay in police work. Pre-retirement programs which are planned would help in this respect. In addition, retired employees cannot work for the government in any capacity without having their pensions reduced.

The OPPA representatives were questioned about the possibility of restructuring jobs so that people aged 55 could do work more suited to their physical capacities. The view of the association was that in these days of financial constraints that was not possible. Previously, older members were used in communications, but now civilians do the same work at lower pay.

The demanding nature of the work which their members perform was also referred to by the ONA and the OTF in support of recommendations for earlier retirement. The ONA noted that with the financial constraints on hospitals and the higher salaries of nurses today, hospitals hire fewer nurses and demand more work in return. There is no scope for transferring older employees to lighter duties, and it is not possible for nurses to work after age 60. While HOOPP has early retirement at age 62 and 20 years of service, these have to be continuous years of service, a requirement not all nurses can meet.

The OTF, observing that teaching was a demanding profession, recommended that the Teachers' Superannuation Act be amended to provide a 70 per cent pension on completion of 30 years of service. The current job situation was also a factor underlying this recommendation. The OTF was seriously considering job-sharing arrangements because of the current employment situation and had been counselling people to commit themselves to a certain retirement age. However, it would not want people's pensions to be adversely affected because they agreed to retire early or to share their jobs with someone.

The MEG recommended that there should be a "35 years of service and out" option in the Public Service Superannuation Act. While only a few people would benefit from this, it would be consistent with many private sector plans which have 35-and-out (and even 30-and-out) provisions. The impact on the fund would be minimal and it might be an effective long-service reward. The MEG also proposed that there be a "pay ahead" provision for earlier retirement under which long-term contributors would be allowed to resign on full pension if they paid, say, double contributions to retirement and accepted a deferred pension.

Requests for early retirement improvements are based on two factors:

(i) job stress and/or the physical demands of the job; and

(ii) the need to create more employment and promotional opportunities.

No evidence was provided, nor could any be obtained, to support contentions that employees in any occupation were "burned out" or unable to meet the demands of their job after a certain age (e.g., data on disability rates by occupation and age). This may also be viewed as a personnel problem. If job requirements cannot be met by some employees after they reach a certain age, perhaps more consideration should be given to the restructuring of jobs, including the creation of part-time jobs, to enable employees to work at a pace that is suited to their capacities. However, under final earnings plans, a switch to a lower-paying job during the later years of a person's working career could significantly reduce the pension received at retirement. If the move were to a part-time job, the employee generally would be no longer eligible for pension plan membership.

There is little doubt that improved early retirement provisions in the public sector would result in the creation of more jobs and promotional opportunities. Older employees are more heavily represented in senior positions. Lack of promotional opportunities, however, is not a problem unique to the public sector, but a general one which reflects recent demographic trends. The problem might be aggravated in the public sector by the fact that the vast majority of employees are covered

by final earnings plans which tend to discourage employees from moving to less senior positions.

Mandatory Retirement

Although this was not an issue raised by any other group, it was the major concern of the firefighters, whose comments centered on the application of age and discrimination rules in the Ontario Human Rights Code to their negotiated retirement at age 60 (58 of 70 locals have compulsory retirement provisions in their contracts).

The OPFA stated that firefighting is a very tough job, where the need is for a person who is totally physically fit and ready to do all kinds of strenuous work under dangerous conditions. Since most individuals cannot perform vigorously after 60, and as some cannot even go through a fire drill, all firefighters should be forcibly retired at age 60. Allowing people to continue beyond that age would present additional hazards to fellow workers.

The association noted that, in recognition of their job performance requirements, OMERS makes provision for firefighters to retire at age 60 without actuarial reduction. The OPFA also stated that members of the provincial government had indicated to them that the age discrimination rules were never intended to apply to firefighters.

CONTRIBUTIONS

The five major plans were and still are contributory, although the original Hydro legislation permitted it to be non-contributory. There is only one non-contributory plan in the public sector - for the hourly staff at McMaster University. In all others employees must contribute a certain percentage of earnings. Today this percentage is a fixed rate for all members; in the past some plans provided for increasing contributions according to age. Current contribution rates for employees are as follows:

PSSF, TSF: Employees contribute 6 per cent of earnings (including the CPP contribution)(10), and an additional 1 per cent for escalation of benefits under the Superannuation Adjustment Benefits Act, for a total of 7 per cent of earnings (e.g., for earnings of $20,000 in 1978, $1,230.80, excluding CPP contributions).

OMERS: Contribution rates vary according to normal retirement date. Normal retirement at age 60 is available to groups of policemen and firemen. For normal retirement at age 65, which applies to 86 per cent of members, the employee contributes 5-1/2 per cent of earnings to the YMPE level and 7 per cent above this level ($1,244 for earnings of $20,000 in 1978). For normal retirement

at age 60, the employee contributes 6-1/2 per cent to the YMPE level and 8 per cent above this level ($1,444 for earnings of $20,000 in 1978). OMERS members make the highest contributions in the public sector.

HOOPP: Employees contribute 4.5 per cent of earnings up to the YMPE level and 6 per cent above it ($1,044 for earnings of $20,000 in 1978).

Ontario Hydro: Employees contribute 3.43 per cent of earnings up to the YMPE level and 5 per cent above that level ($836.72 for earnings of $20,000 in 1978).

There are a few exceptions to the general approach to contributions. In a few university plans, the required contributions to the employer's plan on earnings above the YMPE are twice or more than those on earnings up to that level; e.g., University of Toronto - 2.5 per cent to YMPE, 5 per cent above; Trent University - 3 per cent to YMPE, 6 per cent above; and Algoma - 2 per cent to YMPE, 5 per cent above. In each case, the benefits provided by the plan are proportionate to the different rates of contribution. Another notable variation is the contribution rate for WCB employees hired prior to 1972. The latter contribute on the basis of a scale related to age, from 4.4 to 5.75 per cent.

Employer contributions are based on one of two approaches. Either the employer matches the contributions made by the employees and is responsible to make up any deficiencies if these funds are not enough to pay for the future pension, or the employer contributes the balance required to fund the plan. Employer contributions for the major plans in 1978 were as follows:

PSSF: The provincial government as employer matches the contributions of the employees.(11)

TSF: The provincial government matches the employee contributions plus interest at the rate of 6 per cent (compounded semi-annually) on January 1 of the following year.(12)

OMERS: The employers pay the balance required to fund the plan in accordance with the Pension Benefits Act.(13)

HOOPP: The hospitals as employers pay the balance required to fund the plan in accordance with the Pension Benefits Act.

Ontario Hydro: The employer contributes the difference between the amount of employee contributions and the cost of benefits as determined by actuarial valuations.(14)

VESTING, LOCKING-IN, AND PORTABILITY

Nearly all public sector pension plans have vesting provisions which are more favourable than the legal minimum of age 45 and 10 years' service. The PSSF, TSF, and HOOPP have a 10-year service requirement for vesting. Ontario Hydro has a one-year vesting provision and OMERS, University of Toronto, and Queen's University have immediate vesting.

The public sector plans provide for locking-in of employee contributions after age 45 and 10 years' service following the legal maximum, although it is legally permissible to provide for earlier locking-in if the plan provides for earlier vesting. (The PSSF could require locking-in of employee contributions after 10 years' service and Ontario Hydro could provide for locking-in after one year's service. The plans, however, generally give a choice to vested members so that they may leave their contributions in the fund if they wish).

An employee who is not vested will receive a refund of his or her own contributions upon termination. An employee who is vested but who is not age 45 with 10 years' service has a choice of receiving a refund of his or her own contributions or leaving the contributions in the pension fund and obtaining a pension at age 65 based on the employer's and employee's contributions. An employee who is vested and who has reached age 45 with 10 years' service has no choice and will receive a pension at age 65.

Most terminating employees who had a choice of a refund of their contributions or a deferred life annuity opted for the former. In 1976, 12.63 per cent of terminating employees in the PSSF chose to receive a deferred annuity. In OMERS, over the period 1974 to 1977, 18.95 per cent of the males and 15.06 per cent of the females who had 10 years' service and who were under age 45 elected a deferred annuity. In the TSF, by contrast, 86.9 per cent of terminating employees in 1977 who had 10 or more years of service elected a deferred life annuity.

Contributors who receive a refund of contributions are paid 5 per cent interest compounded annually in the PSSF, and OMERS; 3 per cent per annum compounded half-yearly in the TSF; 3 per cent compounded annually up to December 3, 1971 and 5 per cent compounded annually thereafter in HOOPP; and 3 per cent compounded annually up to December 31, 1960 and 4-1/2 per cent compounded annually in Ontario Hydro.

Portability

Portability exists generally within the public sector itself, that is, vesting of pension rights and obtaining a pension is not completely dependent on continuous service with the same employer, as is usual in the private sector. Among the five major plans, members may count as pensionable service any service which is transferred from another public sector plan under a reciprocal agreement. Amounts of contributions are

transferred from the old plan to the new plan, and any shortfall may be made up by the transferring employee. Reciprocal transfer agreements present certain difficulties in achieving full portability, as discussed in Chapter 6.

While an employee who terminates without vesting receives only a refund of his or her own contributions, with interest, an employee who transfers to another plan under a reciprocal agreement receives credit for double contributions plus a nominal rate of interest (varying from 3 to 5 per cent) for years of service with the previous employer. If the amount transferred is less than the receiving plan requires, the employee has the option of purchasing up to the full pension service credit earned in the exporting plan. Most university plans also allow for the transfer of double contributions plus the fund rate of interest either to another employer's plan or to an RRSP, provided the contributions are locked in. Up to about age 45, double contributions would provide for higher benefits than those promised in any defined benefit plan for each year of service, while for older employees they fall increasingly short of purchasing the promised benefits.

Where employees have had to terminate their membership in a pension plan as a result of the transfer of programs from one area to another of the public sector, a variety of bases has been used in calculating pension transfer values. In each case, apparently, the transfers have resulted in problems, primarily because of the different levels of benefit provided by various plans. Employees transferred into the PSSF generally come from plans with lower benefits and lower contributions. Where the funds transferred did not purchase service credit in the PSSF equal to the years accumulated in the previous pension plan, employees were required either to accept a shorter service credit or pay the difference between the amounts transferred and the amounts assessed by the PSSF. In many cases these payments amounted to several thousand dollars. Where the funds were transferred on the present value basis, the younger employees found that frequently only their own contributions were transferred. Where double contributions were transferred, employees also had to make up the difference. The only exception was the Ontario Housing Corporation group, for whom the funds transferred to the PSSF were sufficient. All other transfers were made on a present value basis; none, it appears, has proved wholly satisfactory.

Another measure of portability is achieved because members in the public sector do not have to be employed continuously, so that previous service with the same employer may be included for determining pension entitlement. Teachers have the most generous provision in this respect because, upon re-employment, a contributor may reinstate his or her previous account at no cost if the employee had not withdrawn past contributions. In the PSSF, the contributor pays an assessment based on salary at the time of re-employment. In Ontario Hydro, an employee may reinstate pension credits if re-employed within one year, by repaying

contributions withdrawn plus interest. Neither OMERS nor HOOPP has any provision for reinstatement of past service.

In the PSSF and OMERS, there are provisions for members to establish credit for previous non-pensionable service. In the PSSF, employees may do this by paying an amount based on salary during the period in which they were not contributors. In OMERS, the employer may pay for the full cost of such service, subject to negotiation with employee groups. In the PSSF and TSF, members may make contributions for wartime service. All major plans except HOOPP permit employees to contribute for periods of authorized absences. The latter provision appears to be particularly advantageous to members of the TSF, since they may take leave of absence for a period of up to two years for travel or study purposes, and may continue their membership in the plan while members of the Legislative Assembly.

Reciprocal transfer arrangements between the public and private sectors are rare. While it seems to have been possible in the public sector to devise transfer provisions that accommodate considerable differences in benefit levels and their valuation, similar compromises among plans in the private sector or between private and public sector plans would require a common approach to pension costing. It would also require some consensus on the desirability of facilitating employee mobility. Reciprocity in the public sector plans reflects a measure of common purpose among the sponsors of plans which, directly or indirectly, are a responsibility of the provincial government. The same basis for reciprocal agreement is not perceived, as a rule, by private plan sponsors.

Desired Changes

Improved portability of pensions was recommended by many groups and individuals. Most saw improved vesting provisions as the basic means by which this should be achieved.

OCUFA ranked portability as its first major concern, a problem related to the variety of university plans as well as restrictive vesting provisions. A number of other groups, notably CUPE, OPSEU, the ONA, and the OTA made detailed comments on this subject in their submissions to the Commission. Briefly their recommendations were as follows:

- CUPE: Minimum standard of full vesting after 5 years of service or at age 30, with locking-in. Creation of a central pension agency to record, transfer, and pay pension benefit credits.

- OPSEU: Vesting after 5 years of service. Locking-in only if deferred benefits are indexed.

- ONA: Immediate vesting and portability.

- OTF: Accrued pension benefits to be vested immediately on employment, and Section 16 of the Ontario Pension Benefits Act to be implemented in order to create a holding bank. Locking-in of employee contributions at age 40.

The OTF noted that, to all intents and purposes, it already had portability and vesting by way of linked service and reciprocal agreements. The ONA, in support of its recommendation for immediate vesting and portability, noted that while there is portability within HOOPP, there is no portability for employees of independent hospital plans. More fundamentally, while many nurses put in long years of service, few have the unbroken service that is required to build up pension rights under current vesting regulations.

The OPPA did not see portability as a major problem, since there is little mobility in the police force. After 5 years, policemen tend to stay in the force. The MEG listed poor portability as one of the weaknesses of the PSSF, especially if an employee wishes to move to the private sector. It suggested that a centralized agency might be established with which all participating organizations would have to deposit their contributions.

DISCLOSURE

Most of the employee groups with whom Dr. Kelly met were highly critical of the information provided to them about their pension plans. Only the OTF was satisfied with the approach taken to information disclosure. It considered the teachers' plan a model in this regard, and expressed the hope that other pension plans would do the same for their members.

CUPE and the ONA both made reference to the difficulties they had encountered in obtaining information about HOOPP. The ONA commented that nurses are poorly informed about their pension benefits, and it was very difficult to obtain any information. Personnel departments of the hospitals know very little and get little help from the OHA in describing the plan to members. Lines of communication between the union and the OHA are very poor. The ONA frequently hears of changes by way of inquiries from individual members. Changes in HOOPP and its benefits are made unilaterally by the OHA, and members may or may not be informed. CUPE was equally critical, describing the OHA as the most difficult group it had encountered as far as withholding of information is concerned.

OPSEU stated that it was seeking legislation to provide for the reasonable disclosure of certain information about pension plans. For example, it wanted information from the Public Service Superannuation Board about its retired members, but had been unsuccessful in obtaining this information.

University plans were also subject to criticism in this respect. OCUFA maintained that university employees receive very poor information about their pension. They feel entitled to all information regarding their pensions as it is part of their compensation. When they do not receive information about it, they suspect that something is wrong with the plan. The University of Guelph Staff Association stated that poor disclosure had made the university plan very unpopular with the staff, many of whom do not think their plan is as good as the university makes it out to be, and many of whom want their money out. The association added that before unions at the university could bargain on pensions they needed to have a much better understanding of the investment and income of their plan. At present, the only information being disclosed is an annual report to all employees giving them some idea of their eventual benefits, but nothing more.

Representatives of the York University Faculty Association remarked that very little information was communicated to the faculty about the pension plan, but employees were partly responsible in that they showed little concern about getting more information. Most information, such as actuarial reports and the composition of fund assets, was available on request. The delegates felt that the personalized annual statements which they received about their pensions were useful and that the staff administering the plan were very helpful. The plan text is currently being rewritten to clarify its provisions and remove ambiguities.

Although employee and pensioner groups were generally critical of the amount of information they received about their pension plans, most plan sponsors maintained that they provided a great deal of information to plan members. Most reported that they provide personalized annual statements, pension plan brochures, annual reports, and pension information at members' retirement. Many also provide pre-retirement counselling. The only kind of information that employers said was not provided to plan members was personal information about other members.

Despite this, it is obvious that pension plan members do not feel that they have adequate information about their pension plans, one of the major gaps being the limited information they receive about financial aspects of the plans to which they contribute. A more specific aspect of disclosure was mentioned by the Ontario Municipal Retirees Organization, stating that it was unable to obtain information from OMERS regarding the names and addresses of retirees. OMERS, however, did mail to pensioners information prepared by OMRO. More generally, OMRO was critical of the lack of information provided to pensioners about the OMERS plan.

COMPARISONS WITH OTHER JURISDICTIONS

This section presents a brief comparison of the main provisions of both the PSSF and the Legislative Assembly Retirement Allowances Plan with similar plans in other jurisdictions in Canada.

Government Employee Plans

Pension Formula

The retirement benefits provided by the PSSF - 2 per cent of best 5 years' average salary per year of service less .7 per cent of earnings up to the YMPE (averaged over the last three years) for service from 1966 - are much the same as those provided in other jurisdictions. Differences result mainly from variations in the CPP offset and in the final earnings base. The PSSF provides a somewhat higher basic benefit than the federal and Manitoba government plans, which use best 6 and best 7 years' salary respectively as the earnings base, though Manitoba has a lower CPP offset. It provides a somewhat lower benefit than Quebec, Alberta, and Prince Edward Island. Quebec and Alberta both use a five-year average of YMPE in determining the CPP reduction, and Alberta also has a smaller offset - .6 per cent - than the PSSF. The Prince Edward Island plan differs from the PSSF in that pensions are based on the best 3 years' salary, rather than the best 5. In Nova Scotia and Newfoundland, the pension formulas are more complex than those in other plans, but they would appear to generate benefits much the same as those in the PSSF. In New Brunswick and Saskatchewan the pension formula is identical to that of the PSSF. (The recently introduced money-purchase plan in Saskatchewan, applicable to employees hired after October 1977, is not directly comparable with the PSSF or with public sector plans in other jurisdictions.)

Contributions

Employee contributions to the PSSF, which amount to 7 per cent of salary including CPP and escalation contributions, are higher than those in public sector plans in most other jurisdictions, (all of which, except for the new Saskatchewan plan, are integrated with the CPP). Alberta has the lowest contribution rate - 5 per cent of salary - followed by Newfoundland at 6 per cent. Contributions in Prince Edward Island, Nova Scotia, and British Columbia are about 6.5 per cent of salary (including contributions for indexing in British Columbia). In New Brunswick and Manitoba the contribution rate is marginally less than 7 per cent. The new Saskatchewan plan, which has a contribution rate of 5 per cent plus CPP, results in contributions of about 6-1/2 per cent up to the YMPE and progressively lower rates above that level.

Employee contributions to the PSSF are lower than those in Quebec (7.5 per cent), the federal government (7.5 per cent including indexing), and in the Saskatchewan closed plan. The latter is unique among government employee plans in grading contribution rates according to the employee's age on entering the plan, the rates ranging from 7 to 9 per cent.

As in the PSSF, employee contributions are matched by the employer in the Federal Superannuation Plan and also in British Columbia, New

Brunswick, Nova Scotia, and in the new Saskatchewan plan. The federal and Ontario governments also meet deficiencies that may arise. In other jurisdictions, and in the closed Saskatchewan plan, there is no specific employer contribution, payments either being made as necessary or according to a formula in which the employer meets a specified proportion of the annual benefits.

Escalation

In most jurisdictions there is provision, as in the PSSF, for automatic increases in pensions based on changes in the Consumer Price Index, generally subject to a ceiling. The exceptions are Alberta, which in fact has made annual increases based on the CPI but has no provision for automatic adjustment; Newfoundland, which has followed the same practice and policy as Alberta; and Saskatchewan, where there is provision in the legislation for ad hoc increases. In the other jurisdictions adjustments are made annually except for British Columbia, which makes regular quarterly increases.

In most jurisdictions that have formal provision for cost-of-living increases, adjustments are subject to an annual ceiling ranging from 4 to 8 per cent. In Manitoba, the increase is limited so that employee contributions allocated to the account in the prior year are able to finance half of the increase. Only the federal government, British Columbia, and Ontario follow the practice of requiring additional employee contributions for escalation benefits to be accounted for in funds separate from the main plans.

Retirement Conditions

In Quebec, Saskatchewan, Alberta, and New Brunswick, the normal retirement age is 65, as in the PSSF. Quebec and Saskatchewan require employees to have 10 years of pensionable service in order to be eligible for a pension - as does the PSSF - whereas in the other two provinces the minimum service requirement is five years. Other jurisdictions in Canada have a normal retirement age of 60, with a 10-year minimum service requirement except in the federal government, where employees can qualify with five years' pensionable service.

In the PSSF, and in Quebec, Saskatchewan, and New Brunswick, employees may retire on full accrued pension at age 60 if they meet specified service requirements - 20 years in Ontario and Saskatchewan; 30 years in the other two provinces. The new Saskatchewan plan has an additional option of retirement at age 55 with 30 years of service. Employees may also retire at age 55 in the federal government and in British Columbia, subject to service requirements of 30 and 35 years respectively. Ontario and Alberta are the only jurisdictions which allow early retirement based on a combination of age and service - 90 points in Ontario; 85 points in Alberta.

Survivor Benefits

The PSSF and six other jurisdictions have a 10-year eligibility requirement for survivor benefits. In the federal government, and in New Brunswick and Alberta, the service requirement is five years. In Quebec a survivor pension is paid only if the contributor's combined age and service was at least 90 years or if he or she was receiving a pension.

Saskatchewan's closed plan is the only one that has a provision identical to that in Ontario - 50 per cent of accrued pension after 10 years of service. New Brunswick provides a 50 per cent pension after 5 years of service and Quebec provides a similar pension under the more restrictive terms noted above. In Newfoundland, the survivor benefit is 55 per cent of the accrued pension; in Manitoba it is 60 per cent; and in Nova Scotia and Prince Edward Island it is 50 per cent plus 10 per cent for each child to a maximum of four, in all cases after 10 years of service. In the federal government, the survivor pension is the same as in Nova Scotia and Prince Edward Island, but with a five-year eligibility condition. Alberta and British Columbia both have Joint Life and Last Survivor Plans, the eligibility period being 5 and 10 years respectively. Saskatchewan's new money-purchase plan provides for a lump-sum payment or an annuity based on accumulated employer-employee contributions.

In the case of the death of a contributor prior to becoming eligible for survivor benefits, most public sector plans provide for a refund of the employee's contributions with interest. In Ontario and Alberta, a surviving spouse gets a return of double contributions with interest.

Equalization within Jurisdictions

There appears to be somewhat greater uniformity of benefits within the public sector in most other jurisdictions than in Ontario. While no jurisdiction has one plan covering all public sector employees, the federal government and Quebec government plans have a much wider range of membership than the PSSF does, while in some other jurisdictions there appears to be a high degree of uniformity of benefits among different plans. It appears too that efforts are being made in some provinces to bring about greater equalization of benefits.

NOTES

(1) Statutes of Canada 1870, 33 Victoria, CAP IV.

(2) See "Legislative History of Major Ontario Public Sector Pension Plans." The precursor of today's Teachers' Superannuation Act was introduced in 1917.

(3) The Ontario Public Service Superannuation Act, S.O. 1920, 10-11 George V, c. 4.

(4) An Act to amend The Power Commission Act, S.O. 1919, 9 George V, c. 16. However the plan did not begin until 1923.

(5) The plan was established by the Ontario Hospital Association and is not regulated by specific legislation.

(6) An Act to establish the Ontario Municipal Employees Retirement System, S.O. 1961-62, c. 97.

(7) Statistics Canada, Labour Force Annual Averages, 1975-78, Cat. 71-529, Table 3, p. 19; Ontario Public Sector Pension Plan Data.

(8) Forty per cent of the Year's Maximum Pensionable Earnings under the Canada Pension Plan.

(9) For example, Queen's University as described in Brief 227.

(10) The precise contribution is 6 per cent of earnings to the level of earnings exempt from CPP, ($1,040 in 1978), 4.2 per cent of earnings between the YBE and the Year's Maximum Pensionable Earnings (1.8 per cent being the CPP contribution), and 6 per cent above YMPE. ($10,400 in 1978). The 1978 CPP employee contribution was $169.20.

(11) The Public Service Superannuation Act RSO 1970, c. 387 as amended provides in Section 10(1) as follows:

> Except as otherwise provided, where a contribution is credited to the fund an equivalent amount shall be credited to the fund out of the monies appropriated therefore by the legislature.

(12) The Teachers' Superannuation Act RSO 1970, c. 455 as amended provides in Section 22(1) as follows:

> Annually and at the same time as the total legislative grant is payable to the board or other authority, the Treasurer shall place to the credit of the fund a sum equal to the contributions made by or on behalf of the persons to whom this act or the regulations apply.

(13) The Ontario Municipal Employees Retirement System Act RSO 1970, c. 324 as amended provides in Section 10 as follows:

> The contributions of the employers who participate in the system shall be such an amount as is required, in addition to the contributions of the members and the interest earned by

the fund, to provide for the payment of the benefits and the expenses under the regulations.

(14) The Power Commission Act RSO 1970, c. 354 as amended provides in Section 21(4) as follows:

> The Commission shall contribute toward the cost of the benefits mentioned in sub-section 1 the amount of the difference between the amount of the contributions of the employees and the amount of the cost of the benefits as determined by actuarial valuations.

LIST OF TABLES

Chapter 3

Funding of Public Sector Plans

INTRODUCTION

The recent experience of public sector pension plans in New York City in which the plans seemed on the brink of bankruptcy has brought many people in Ontario to question the financial position of Ontario's public sector plans. The conversion of public sector plans in Saskatchewan from defined benefit to defined contribution plans has raised further questions. Part of the Commission's terms of reference calls for an assessment of the effectiveness of Ontario's plans for its employees, which in turn requires an examination of their funding status and the cost of fulfilling the funding requirements. The cost element is examined in the Chapter 5.

In 1965, when the Pension Benefits Act was introduced, the Government of Ontario adopted the policy of having pension plans for all public sector employees come under the jurisdiction of the Pension Benefits Act. Accordingly, all plans are required to comply with the funding and solvency provisions of the act and regulations. The Legislative Assembly Retirement Allowances Account (LARA) for former members of the Legislature does not come under the Pension Benefits Act at the present time since those covered are not employees of the government.

Since the Public Service Superannuation Fund was established in 1920 and the Teachers' Superannuation Fund in 1917, various funding procedures had been adopted over the years, and by 1965 substantial unfunded actuarial liabilities had accumulated. In 1965 rather than call for liquidation of these amounts over a set period of years it was settled that interest only would be paid on these liabilities in perpetuity. It could reasonably be expected that as pension obligations grew these liabilities would form an increasingly smaller part of pension liabilities. Furthermore, the taxing power of the government was

always available to make good on these liabilities should the need ever arise.

R.R.O. 1970, Reg. 654, s. 2(13) under the Pension Benefits Act provides:

> "Where a pension plan is administered for the employees of a government, the special payments in respect of an initial unfunded liability existing on the 1st day of January, 1965 may be limited to the annual amount required to prevent any increase in such liability."

Use of this section has been limited to the PSSF and the TSF. Except for this departure from the usual funding provisions, public sector plans have been administered in accordance with the Pension Benefits Act.

In recent years many have become alarmed by large and unexpected increases in unfunded actuarial liabilities revealed in actuarial evaluation for periods ending in 1974 and later, both in the private and the public sector. The Commission has given particular attention to the meaning of those unfunded actuarial liabilities in the Ontario public sector. The subject of funding as it applies to pension plans in general is dealt with at length in Volume II, Chapter 9. The reader is referred to this for an understanding of the terms used in the discussion which follows.

FUNDED STATUS OF SIX MAJOR PLANS

The Commission asked Keith Cooper, one of its consulting actuaries, to assess the actuarial status of six major plans in the Ontario public sector:

Public Service Superannuation Fund (PSSF)
Teachers' Superanuuation Fund (TSF)
Ontario Municipal Employees Retirement System (OMERS)
Hospitals of Ontario Pension Plan (HOOPP)
Ontario Hydro Employees' Pension Plan (Hydro)
Ontario Workmen's Compensation Board Superannuation Plan (WCB)

These six plans cover 84.5 per cent of public sector employees in Ontario and control nearly nine billion dollars of assets - the major portion of assets of all public sector plans.

Mr. Cooper's findings appear in full in Volume VII of the report. Table 1 prepared from Appendix A of his report shows the funded status of each of the plans at the date of the latest triennial valuation available in 1978. It should be noted that Mr. Cooper's assessment in Column 4 shows the relationship of plan assets to actuarial liabilities

on a test valuation or approximate wind-up value basis at the date of valuation. For example, if the PSSF were wound up at December 31, 1976, the assets would be sufficient to pay $.86 on every dollar of liability for pension benefits to December 31, 1976. This ignores certain priorities on wind-up required under the Pension Benefits Act; the actual percentage in practice would not be 86 per cent of benefits for all employees. Some would receive 100 per cent of entitlement and others less than 86 per cent. The ratio also does not tell us whether the unfunded portion arises from experience deficiencies or the additional cost of such features as early retirement. However, the funded ratio approach does indicate that the pension plans are in good financial shape and that fears such as those over some U.S. public sector plans are not warranted for Ontario public sector plans.

Table 1
Funding Status of Six Major Public Sector Employment Pension Plans in Ontario

	Actuarial valuation date	Actuarial valuation method	Ongoing basis: Unfunded actuarial liability or (surplus)	Ongoing basis: Per cent total liabilities	Wind-up basis(a): Unfunded actuarial liability or (surplus)	Wind-up basis(a): Funded ratio
			(Thousands of dollars)	(Per cent)	(Thousands of dollars)	(Per cent)
Public Service Superannution Fund (PSSF)	Dec. 31, 1976	Level premium entry age normal	505,355	19.3	214,426	86
Teachers' Superannuation Fund (TSF)	Dec. 31, 1975	Level premium entry age normal	1,397,178	20.6	375,190	85
Ontario Municipal Employees' Retirement System (OMERS)	Jan. 1, 1977	Accrued benefit unprojected(b)	(110,632)	14.6	Not available	Estimated over 100
Hospitals of Ontario Pension Plan (HOOPP)	Dec. 31, 1976	Accrued benefit projected	122,133	20.6	Not available	Estimated over 100
Ontario Hydro Employees' Pension Plan (HYDRO)	Dec. 31, 1976	Accrued benefit projected	142,530	15.9	Not available	Probably about 100
Ontario Workmen's Compensation Board Superannuation Plan (WCB)	Dec. 31, 1977	Level premium entry age normal	(13,024)	(13.2)	(18,740)	134

a Accrued benefit method without projections for salaries or allowances for future turnover.
b OMERS uses accrued benefit projected method for final average plan from Janaury 1, 1978.

Source Royal Commission on the Status of Pensions in Ontario, Keith Cooper, Appendix A, "Report on Public Sector Pension Plans."

Plans like OMERS and WCB which show surpluses are "fully funded" according to the Pension Benefits Act. Plans like the other four, which have large unfunded actuarial liabilities but for which provision has been made for their orderly liquidations over time, are "provisionally funded" according to the Pension Benefits Act. By falling into either of these two classifications, all six plans are deemed under the act to be solvent. All plans show smaller liabilities on a wind-up basis than on an ongoing basis because there are no salary projections such as those required for valuation on an ongoing basis.

With regard to the PSSF and TSF plans, their post-retirement adjustment funds (PSSAF and TSAF) are excluded and accounted for separately. There were large unfunded actuarial liabilities in both of these funds as at December 31, 1976.

DESIRABILITY OF FUNDING

Mr. Cooper in his report notes:

"The funding of public sector pension plans (PSPP's) is a controversial subject. At one extreme, we find those who advocate pay-go funding in recognition of the fact that the government entity has an ongoing tax base from which to generate the necessary revenues to support the obligations of the pensions promised. Consequently, they question why huge reserves need to be established to cover these future promises when such assets could be put to better use today. Furthermore, they question why today's more valuable or 'hard' dollars should be tied up when future payments can be made with cheaper or 'soft' dollars.

"Those who advocate the funding of PSPP's, on the other hand, are concerned about the future ability of the governmental entity, regardless of its size, to meet pension obligations unless a disciplined approach to prefunding has been undertaken. They see the desirability in charging current generations for their fair share of the cost of pension promises made to current members of the governmental unit. Good accounting practices are foremost in their mind as is the desirability of assuring the plan members of the security of their pension promises. Real assets also represent a base to fall back on should the governmental entity run into cash flow difficulties. The recent experience in New York City and the current Cleveland financial crisis are certainly supportive of the need for real assets versus using public debt."

The Commission accepts the fact that a pay-go approach could be considered for all public sector plans if security of the promise were the only point at issue. It is firmly convinced, however, that funding is essential for cost control. It therefore recommends that:

The Government of Ontario continue to support the principle that all public sector employment pension plans, being those directly or indirectly funded by government obligations or guarantees, come within the provisions of the Pension Benefits Act, and that, except as recommended for the Legislative Assembly Retirement Allowances Account, no new exceptions be made to permit continuance of an initial unfunded liability without provision for special payments to reduce such liability.

The Pension Benefits Act be amended to apply immediately to the Legislative Assembly Retirement Allowances Account in the same fashion as it now applies to public sector employees' plans, with any unfunded actuarial liability in the account at the effective date of such amendment to be treated as an initial unfunded liability on which interest only is payable under Section 1(13) of the regulations under the Pension Benefits Act, subject to the making of payments which may be necessary from year to year to fulfil cash flow requirements.

Any act creating a public sector pension plan whose provisions are not in accordance with the Pension Benefits Act be amended immediately to comply with the requirements of the Pension Benefits Act and to be subject to the requirements of the Pension Benefits Act.

FUNDING METHODS

From Table 1 we see that three plans, PSSF, TSF, and WCB, use a level premium entry age normal method of funding. HOOPP and Hydro use the accrued benefit projected method and OMERS the accrued benefit unprojected method. (OMERS changed to the accrued benefit projected method but with a minimum total contribution when it adopted a final average plan as of January 1, 1978.) The question then arises why the same method is not used for all plans and if it should be, which method should be used.

Mr. Cooper in his report notes that the level premium method always requires more fund assets to be on hand at a given time than does the accrued benefit projected method and therefore can be said to produce greater funding than necessary for public sector plans. He says the same conclusion could be drawn even where the accrued benefit projected method is used; therefore for the major public sector pension plans it may be sufficient if funding covers only the actuarial liability on a wind-up basis at a particular time. At some stage in the funding progression of every one of the plans this would require even smaller annual contributions than the accrued benefit projected method. There are however good reasons, which the Commission believes are relevant to the public sector, for requiring more than that minimal degree of funding. The chief reason is that level premium funding will maintain a

stable cost pattern for current service cost regardless of changes in the demographic structure of the plan membership. This is of particular importance now with the effect of declining school enrolment on the numbers and age distribution of members in the TSF. Whether other public sector plans may experience similar changes in the future is touched on in Chapter 5.

Where under the method chosen there is over-funding, consideration should be given to altering the payment arrangements until funding is reduced to a fully funded basis. The WCB at December 31, 1977 was 134 per cent funded on a wind-up basis and in a surplus position of $13 million or 13.2 per cent of total liabilities on an ongoing basis. Ordinarily this comment would apply as well to the OMERS plan, which at January 1, 1977 was estimated to be over 100 per cent funded on a wind-up basis and in a surplus position of $110.6 million or 14.6 per cent of total liabilities on an ongoing basis. We understand, however, that its position has already changed because of improvements in the plan formula which have absorbed much of the surplus.

Over-funding in general is unnecessary from the point of view of both the pension plan and the taxpayer, and should not be permitted to continue. The type of review suggested later, in the Commission's recommendations on cost, is designed to identify such situations so that steps may be made to rectify them. To build up surplus in the hope of achieving improved benefits more easily is not a proper goal of the funding techniques, if this has been the past approach in any of the plans.

The Commission believes that both the level premium methods and the accrued benefit methods for funding (within the five methods recommended for funding generally) should be employed for public sector plans, as the actuary for the plan may determine suitable, in accordance with guidelines set (as recommended) by the Pension Commission of Ontario. Suitability of a method should be gauged with the emphasis first on cost control and only secondly for security.

MATCHING CONTRIBUTIONS

The idea of a "matching contribution," i.e., an employer's contribution equal to that of the employee, is a common expectation in the public sector. It is specifically legislated in the Teachers' Superannuation Act, Section 22(1) which provides:

> "Annually...the Treasurer shall place to the credit of the Fund (TSF) a sum equal to the contributions made by or on behalf of the persons to whom this Act or the regulations apply."

At present teachers are required to contribute to the TSF 6 per cent of salary, including CPP contributions, and the province pays

a like amount, making a total payment of 12 per cent of payroll for current service cost.

The Teachers' Superannuation Act provides for the make-up of any deficits in the following terms:

> Section 3 "When the payments into the Fund in any year are insufficient to make the required payments out of the Fund, the deficiency shall be made up out of the Consolidated Revenue Fund."

In the latter section it is acknowledged, in effect, that a matching contribution arrangement may not be adequate for a defined benefit plan. Where a plan design involves both a specific benefit formula and a specific formula for employee contributions, the employer's contribution should not be fixed as well. Depending on age distribution, investment earnings and other factors, the employer's share of the cost may be more or less than the employees' - rarely is it the same, and then only by coincidence and temporarily. Since a "matching" contribution may not prove adequate to meet all benefit obligations, some additional provision is necessary in order to guarantee payment of the promised pensions. With the government as guarantor, the TSF is able to assure its members: (a) that the "employer" contribution is at least as much as their own; and (b) that any shortfall in the 50-50 funding will be made up, although on a year-by-year benefits payment basis only. (Theoretically, matching contributions in a defined benefit plan could generate an unjustifiably large surplus; but no surplus could long survive the pressure to raise benefit levels).

Clearly, the Teachers' Superannuation Act itself does not contemplate full prefunding of benefits, although the prescribed financing could - for a time at least - cover funding as required under the Pension Benefits Act. However, the government guarantee is expressed solely in terms of current contributions and benefit payments, and not in terms of payments toward existing and accruing liabilities. Accordingly, where there is a deficiency as that term is used in Section 3, and the government makes up the difference in that year, no additional government monies are available to make up any remaining deficiency arising from unfunded actuarial liabilities or (as may occur) from current service cost. In short, while the government guarantees the promised benefits, it does not ensure that the TSF will remain solvent and so continue to qualify for registration under the Pension Benefits Act.

At the time of its inception in 1917 and until the advent of pension benefits legislation in 1965, the teachers' plan was free to operate without an explicit provision for advance funding. Plan members are assured that the government will meet any future shortfall on a pay-as-you-go basis. From 1965, however, the administrators have had an obligation beyond the terms of the Teachers' Superannuation Act to

demonstrate that the plan's revenues are sufficient to meet its current service cost (for accruing benefits) and also to amortize through special payments any initial unfunded liability or experience deficiency.

Until the early 1970s it may be that the matching contributions in fact were sufficient to cover both current service costs and the equivalent of any required special payments. Thus, despite the quite different funding basis contemplated in the TSA, compliance with the solvency standards established by the Pension Benefits Act was at least possible. Reconciliation of the two appears to have become more difficult, however, with the rapid escalation of salaries in the mid-1970s and the consequent creation of new and substantial unfunded liabilities.

The actuarial report for the TSF for the three-year period ending December 31, 1978 sets out the problem created by the matching contribution principle:

"Current Service Contributions

Teachers now contribute to the Superannuation Fund 6% of their salaries, less their required CPP contributions. The Province matches these contributions and also makes the payments required to finance the unfunded liability in accordance with the Pension Benefits Act.

We found that the combined teacher-Province statutory contribution rate (12% less CPP) is now less than the minimum required contribution rate determined according to the actuarial cost method used in all valuations of the Teachers' Superannuation Fund. If the matching principle is to be maintained, then both the teachers' contribution rate and that of the Province should be increased by 0.4% to 6.4% less CPP. If the teachers' contribution rate is not changed, then the Province's contribution rate should be increased by 0.8% to 6.8% less CPP.

"Minimum Annual Payments

In accordance with the Ontario Pension Benefits Act, the unfunded liability of $1,096 million should be financed by annual payments starting December 31, 1979 in the amount of $119,827,000. This annual payment continues in effect until December 31, 1989 and then reduces in accordance with the table given in our report.

The total annual payment of $119,827,000 is equal to about $1,056 per active teacher or 5.1% of the annual salary of active teachers on the valuation date. The annual amortization payment required in the years 1976 to 1978 inclusive was $144,436,000."

Thus it is clear that not only are special payments required of 5.1 per cent of payroll for which there is no legislative authority, but

also the present matching contributions of 6 per cent are insufficient to meet the current service cost.

There are at least three possibilities for correcting this situation:

1. The fund is now using an entry age normal (level premium) method which requires heavier funding than an accrued benefit method. Changing to the latter method would reduce current service cost. However as noted above the entry age method provides a stable cost which will become increasingly important as the age composition of the TSF membership changes with changes in the employment structure. The Commission would not recommend any change in the funding method.

2. The matching contribution could be increased to cover current service cost. Since the amount of contribution is fixed by statute this would require legislation, possibly every three years. The whole question of the contribution structure and a possible reduction of the benefit level to meet the contributions would be the subject of negotiation with the teachers. The Commission would not consider this a preferred answer, since it does not go to the root of the problem.

3. The matching contribution principle could be abolished and the government as employer would assume the same responsibilities as an employer in the private sector and be responsible for any cost, whether for current service or special payments beyond that covered by the employees' contributions and the return on investments. This should have a salutary effect toward attaching full cost to the benefits being provided. If matching contributions are to be maintained, then it becomes essential - as in any other plan - that benefit levels be adjusted from time to time to reflect what the contributions will purchase. It is also necessary to give careful consideration to investment policy in order to attain the best possible yield.

Similar problems are found in other public sector plans. The matching contribution principle occurs in the PSSF by Section 10 of the Act and in the case of OMERS by practice rather than by legal requirement. Under OMERS the board fixes the contribution rate for employees from time to time based on the amount recommended by the actuary to cover current service cost and special payments. The OMERS Brief(123) states: "In practice, so far employee and employer contribution share has been equal."

Mr. Cooper in his report comments unfavourably on the matching contribution principle:

"...if the actuarial assumptions are to be realistic, it is imperative that the actuaries' inclination to use current and realistic assumptions not be inhibited by a constraint to equate employee and employer current service costs."

Possibly the most unfortunate use of the matching contribution principle is that under the Superannuation Adjustment Benefits Act, 1975 (SABA). This act created the Superannuation Adjustment Fund Account for the purpose of paying the indexed portion of pension benefits for public sector plans designated under the act. To date four plans have been designated: TSF, PSSF, Ryerson Polytechnical Institute, and the Caucus Employees Retirement Plan.

Section 8a) of SABA requires employees to contribute 1 per cent of salary to the Adjustment Fund, and: "the employer shall contribute to the Adjustment Fund an amount equal to the amount contributed under clause a)." The act provides for review of the contribution rates of both employers and employees, but provides that the 1 per cent/1 per cent contribution shall remain unchanged until at least January 1, 1981. There is no provision in the act for the payment of current deficiencies out of Consolidated Revenue as we find in the TSF and the PSSF.

The actuarial valuation of the TSF as at December 31, 1978 reveals that already there are unfunded liabilities in this fund as it applies to teachers. The report states:

"<u>Escalation</u>

In 1975, the automatic escalation of teachers' pensions in accordance with changes in the Consumer Price Index was introduced. However, this change was made by enacting a new law, the Superannuation Adjustment Benefits Act. Special contributions, which are currently at the rate of 1% of salary, are paid by all teachers into a separate fund, the Superannuation Adjustment Benefits Fund. The Province's matching 1% contribution is also paid into the S.A.B. Fund and escalation benefits are paid from that Fund. As a result, the escalation benefits and the contributions earmarked for those benefits were not taken into account in our valuation of the Superannuation Fund.

If the escalation benefits were provided by the Superannuation Fund and financed in the same manner as all other benefits of that Fund, then the required contributions and the unfunded liability would be substantially higher than the results given in this report."

The Commission has commented elsewhere (see Volume II, Chapter 9 and later in this chapter) on the fact that the scheme of SABA offends the funding principles of the Pension Benefits Act and that it should be abolished. It is mentioned here as an example of the inappropriateness of a fixed matching contribution principle.

The Commission therefore recommends that:

The principle of "matching contributions" in all public sector plans providing defined benefits be abandoned, and that legislation and established policies setting contributions on a matching basis in such plans be amended so that contribution rates reflect the true cost responsibilities under the plan.

LEGISLATIVE AMENDMENTS REQUIRED

It should be noted here that abolition of the matching contribution principle is linked with the principle that all public sector pension plans should be subject to the Pension Benefits Act. It is not sufficient merely to adopt this principle in general. The specific acts outlining the plan provisions as in the case of the Teachers' Superannuation Act and the Public Service Superannuation Act will have to be amended extensively.

In addition to plan amendments, the legislation which empowers a government agency to establish a pension plan should be amended to provide specifically that the plan established under that statutory authority is subject to the Pension Benefits Act. If by interpretation, the Crown and its agents are not bound unless so stated in an act then the Pension Benefits Act should be amended to state specifically that the Crown and its agencies and the municipalities are bound for all pension plans by all the aspects of the Pension Benefits Act, rather than binding the Crown indirectly through the definition section of that act.

The Commission therefore recommends that:

The Pension Benefits Act be amended to specifically bind the Crown in the right of Ontario, its Crown agencies, its agents, its boards and commissions, and its municipalities to comply with the provisions of the Pension Benefits Act.

EXISTENCE OF THE FUND

The concept of funding implies the segregation of monies to create a fund. The fund is invested and the proceeds of the investments are added to the original fund assets all with a view to accumulating the amount required to pay all the promised benefits when they become payable. Segregation of the monies from those of the employer is a cardinal principle under the Pension Benefits Act for all plans in the private sector for the protection of employees against loss of the fund. Identification of plan assets through a fund also permits easy identification of investment proceeds. Most public sector plans also utilize a fund which is segregated from the employer's assets. The

notable exceptions are the PSSF, LARA, and the Superannuation Adjustment funds. Although TSF and OMERS hold non-marketable debentures of the Province of Ontario, the evidence of debt is sufficient to support the concept of the existence of a fund. However the degree of real segregation is at issue. The desirability of such investment procedures will be considered in detail in the next chapter.

The PSSF is a fund created under the act constituted as set out in Section 5(2):

> "The Fund consists of the moneys paid in by contributors and the moneys credited to the Fund out of the Consolidated Revenue Fund or otherwise in accordance with law, less the moneys paid out under this Act."

The act further provides for interest on the Fund:

> "5.(4) Interest shall be credited at the close of each fiscal year to the Fund out of the Consolidated Revenue Fund at a rate and in a manner to be determined from time to time by the Lieutenant Governor in Council."

The fund is not segregated physically from the Consolidated Revenue Fund of the Province of Ontario. It is reflected as a balance in the hands of the Treasurer of Ontario and is known as the Public Service Superannuation Fund Account. It appears in the financial accounts of the province as a credit to pension funds under Trust Administration Functions of the Statement of Non-Budgetary Transactions. Note 6 to the Financial Statements with the Public Accounts, 1978-79 states:

> "The Province of Ontario maintains accounts within the Consolidated Revenue Fund for all contributions and interest earnings less pension payments for both the Public Service Superannuation Fund and Legislative Assembly Retirement Allowances Account. The amounts recorded by the Province are essentially the sole assets of these pension plans."

In the Commission's opinion the Public Service Superannuation Fund should be established immediately as a fund separate from the Consolidated Revenue Fund and the Treasurer's Accounts. The employees are entitled to have their monies segregated and also to have the employer's money placed in a fund for investment. Once a separate fund is created, an investment policy can be undertaken which will result in real assets, providing financial security for the fund as well as a pool for capital investment apart from the control of the province. However painful the initial readjustment might be, the Commission believes that such a step is essential for an awareness of pension cost by both employer and employee and for the confidence of employees and the public in the security of the plan.

The Commission therefore recommends:

That the Public Service Superannuation Fund (PSSF) be established as a separate fund apart from the Consolidated Revenue Fund and the Treasurer's Account with an initial unfunded liability as of January 1, 1965 on which interest only is payable pursuant to Section 1(13) of the Pension Benefits Act regulations, with all other initial unfunded liabilities or experience deficiencies to be amortized by special payments in the usual way under the Pension Benefits Act.

A similar provision should be made for the Legislative Assembly plan if it is to be brought under the Pension Benefits Act as recommended.

FUNDING OF INDEXED BENEFITS

The general problems relating to the funding of indexed benefits were discussed in Volume II, Chapter 9. Desirability of indexing in periods of high inflation has created much discussion and some resentment in the private sector where employers have been reluctant to undertake any automatic indexing. The Commission's consumer survey showed however that there was little desire on the part of those in the survey sample to cut back indexing for public servants; rather the emphasis was towards requiring indexing in all employment pension plans.

Once the indexing of benefits becomes part of the promised pension, then the question of the funding must be addressed. As we have seen in Chapter 2, not all public sector plans are indexed in some fashion (HOOPP has no inflation adjustment). Many are adjusted on an ad hoc basis (Hydro has regular ad hoc adjustments). The most visible of the indexed pension plans are the PSSF and the TSF which provide for automatic indexing up to 8 per cent a year, paid from contributions into a separate indexing fund.

The Superannuation Adjustment Benefits Act

On July 18, 1975 the Superannuation Adjustment Benefits Act, 1975, (SABA)(1) came into force "to provide superannuation adjustment benefits to persons in receipt of pensions payable out of pension funds indirectly out of the Consolidated Revenue Fund." The act applies only to pension plans designated by the regulations under the act. To date four plans have been so designated:

Teachers' Superannuation Fund, August 30, 1975
Public Service Superannuation Fund, December 15, 1975
Ryerson Polytechnical Institute, July 27, 1977
Caucus Employees Retirement Plan, December 29, 1977

The act provides for indexing to the Consumer Price Index for Canada for the year ending September 30th to the extent of 8 per cent. Any increase beyond 8 per cent can be carried over to other years in which the increase in the CPI is less than 8 per cent. The adjustment is cumulative from year to year.(2)

The act requires a contribution of 1 per cent of salary from every employee who contributes to a designated plan. A like amount is contributed by the employer.(3) "Employer" is defined as the employer within the meaning of the pension plan.(4)

The Superannuation Adjustment Fund set up under the act(5) is held by the Treasurer of Ontario as a separate account in the accounts of Ontario, and receives the contributions from all the designated plans. A separate account is maintained for each plan. Interest is credited annually at a rate determined by the Lieutenant-Governor in Council from time to time. For the years 1978-79 the PSSF rate was 9.81 per cent for net amounts on deposit with the Consolidated Revenue Fund for a minimum of 10 years; for the TSSF, 9.95 per cent, 15 years minimum; for Ryerson and Caucus Employeés, 10.06 per cent with a 20-year minimum.

The act segregates employees who have not made contributions, usually retired or terminated employees, from those who have made contributions to the Fund. Those who have made at least one contribution are entitled to payment out of the Fund. Those who have not contributed are entitled to the same adjustment but it is paid by the employer and not out of the Fund.(6)

In 1979, payments for PSSF pensioners for indexing quite apart from those who contributed under SABA, were as follows:

	(Millions of dollars)
Indexing of basic benefits	11.13
Indexing of ad hoc adjustments	3.04
	14.17

There is no provision for paying adjustments directly from the pension fund, and therefore these indexing costs are borne fully by the employer - in the case of the PSSF, from the Consolidated Revenue Fund.

Added to these indexing costs are the ad hoc adjustments made to pensions prior to 1975 for the same groups of employees, which are also paid out of the Consolidated Revenue Fund. These ad hoc adjustment payments amounted to $8.9 million in 1979.

Taken together, additional payments for indexing and ad hoc adjustments in 1979 for the PSSF totalled $23.07 million paid out of the

Consolidated Revenue Fund, or 1.86 per cent of payroll. In the TSF the same kinds of payments are made; they appear to be about double the PSSF amounts, but are about the same percentage of payroll.

Cash Flow Projections for the Adjustment Funds

Contributions to the Fund of 1 per cent from each of the employee and the employer are provided for expressly in the act, and no change in the rate may be made before January 1, 1981.(7)

The design of the Fund retains the principle of matching contributions. The fixed rate of these matching contributions raises the question of whether the true cost of indexing is actually being funded. Keith Cooper reports:

"Cash flow projections performed by the Chief Actuary for the Ontario Government using two sets of inflationary assumptions, one grading from 7.2% in 1977 down to 4% in 1991 and later and the other assuming 8% inflation throughout, developed the following results for the Public Service Superannuation Adjustment Fund and the Teachers' Superannuation Adjustment Fund:

	Graded Inflation		8% Inflation	
	PSSAF	TSAF	PSSAF	TSAF
1. Year Cash Flow First Negative	1986	1987	1985	1987
2. Year of Maximum Fund	1989	1991	1986	1988
3. Year Fund First Negative	1996	1999	1992	1995

"The calculations assumed a stable population throughout and were based on an assumed investment rate of return for new investments of 8% for 15 years and 6% thereafter. The salary scale and the graded inflation scale used are set out below:

Year	Salary Scale	Graded Inflation Scale
1977	6.00	7.20
1978	7.00	7.25
1979	8.00	7.00
1980	8.00	6.75
1981	7.00	6.50
1982	6.75	6.25
1983	6.50	6.00
1984	6.25	5.75
1985	6.00	5.50
1986	5.75	5.25
1987	5.50	5.00
1988	5.25	4.75
1989	5.00	4.50
1990	4.75	4.25
1991 and later	4.50	4.00

"These projections provide a picture of what the possible prognosis for these funds will be. Obviously, the present 1% contribution rate will have to increase. The problem is somewhat similar to that of the Canada Pension Plan where current beneficiaries are reaping a windfall at the expense of future generations of workers....Discussions with the Chief Actuary for the Ontario Government indicates that a study now being completed for the Ontario Treasury Ministry suggests that the current service indexing costs will be about 7% of earnings for the PSSAF and TSAF or about 5% of earnings above the present contribution level."

From the above projections it is clear that the rates of contribution will have to increase substantially in 1981 to fund the adjustments on the same basis as for other pension benefits. Section 2a of the Pension Benefits Act regulations provides that such escalation adjustments need not be prefunded so long as current payouts are covered as current service cost. However if the indexed benefits are not prefunded there are serious cost consequences for the future. The matching contribution principle means that the government may not be in a position to pay the full current service cost unless contribution rates are increased by regulation. Some pensioners are now receiving a large benefit for almost no contribution. Pensioners in later years, if inflation continues at high rates, run the risk of the fund running out, with the employees refusing to continue to pay contribution rates sufficient to keep the fund solvent. However appealing the thought of a pension indexed at 8 per cent for a 1 per cent contribution, the issue of the true cost must be faced. It is highly questionable to require a contribution from an employee for a scheme which involves so little security. On the other hand, if government sees itself in the position

of making up any shortfall in later years, then the appropriate changes should be made now in the statute, the benefit funded and the true cost revealed to the taxpayers. The scheme is contrary to the principle of the Pension Benefits Act in not segregating the Fund or funds from the Consolidated Revenue Fund.

The Commission has made its position clear (see Volume II, Chapter 9 on Funding) that all inflation adjustments should be funded in the same way as other benefits, whether provided in the public or the private sector. The reasons for funding in the public sector in the case of the Superannuation Adjustment Benefit Fund are both for cost control and security, since the government is not, in this scheme, agreeing to pay any deficits which may arise.

If the government as employer, in the four plans now designated under SABA, wishes to provide automatic indexing to a cap of 8 per cent it should be obliged to face the true cost of such a benefit and it may also require the employee to pay a portion of that true cost. In this way the employee, the employer and the taxpayer can judge the advisability and affordability of the benefit. The judgment is to be made by those parties and not by this Commission. The Commission merely makes reference to consideration of the need for indexing taking into account other sources of retirement income which are fully indexed, the proposed participating annuity option, and, as discussed in a later chapter, the relationship between public and private sector employee benefits.

The Commission therefore limits its recommendations to the method of paying for indexing and does not recommend that all adjustment should cease. The repeal of SABA would end entitlement for adjustment, but it is contemplated that the entitlement would be continued by incorporation into the separate legislation or plan document of the four designated plans.

The Commission therefore recommends that:

The Government of Ontario take immediate steps to phase out the Public Service Superannuation Adjustment Fund (PSSAF), the Ryerson Adjustment Fund, the Caucus Employees Adjustment Fund, and the Teachers' Superannuation Adjustment Fund (TSAF) and in due course repeal the Superannuation Adjustment Benefits Act. In the interim, payments for adjustment should continue out of the four adjustment funds with all payments to cease at December 31, 1981 and all funds from the contributions by employees and the government as employer to be transferred to the Public Service Superannuation Fund, the Ryerson Pension Fund, the Caucus Employees Retirement Fund, and the Teachers' Superannuation Fund respectively as of that date. Any unfunded liabilities created by this change should be treated as initial unfunded liabilities and be amortized over 15 years in the respective funds.

Post-retirement adjustments for persons who retired before January 1, 1976 and who are receiving post-retirement adjustments out of the Consolidated Revenue Funds of Ontario, continue on the present basis.

In the case of ad hoc adjustments made in public sector plans on a regular basis but outside the pension plan itself, the Government of Ontario take steps to bring such payments within the framework of the pension plan for cost identification purposes.

The Government of Ontario take no steps to adopt terminal funding for post-retirement adjustments or to extend the use of supplementary adjustment funds for the purpose of providing post-retirement adjustments outside the funding provisions of the Pension Benefits Act.

Although the Commission opposes the adjustment fund approach, it wishes to put forward some specific recommendations for these funds if the Government of Ontario is not prepared to abolish them, namely:

If indexing is to continue on the basis that it is paid out of a separate fund contributed to by government and employees on an equal basis:

a) the indexing promise is to be changed from the present 8 per cent cap with carry-over, so that the government responsibility is limited to its 1 per cent contribution to the SABA fund;

b) the SABA fund should be operated on a pay-as-you-go basis with each employee being clearly warned that adjustments can be made only to the extent of the fund, and that they may not receive an adjustment when they retire;

c) consideration should be given to making participation in this fund voluntary for the employee;

d) that this approach not be extended to the private sector.

In the Commission's opinion, the full cost of indexed benefits, whether fully funded, pay-as-you-go or regular ad hoc, should be determined and considered in assessing the burden which the government assumes for pension benefits for public sector employees.

PUBLIC SECTOR STUDY - COMPARISON OF FUNDING OF PUBLIC SECTOR PLANS

The public sector study clearly illustrates the difficulties present in comparing existing public sector funding policies and practices and hence costs. The following comments are based on the data assembled by Dr. Kelly and set out in Volume VII of this report.

(It should be noted that in his treatment Dr. Kelly was attempting to isolate the payments which were required to be made by the employer for all purposes of the pension plan except for administrative expense, and to express the total of these payments as a percentage of pensionable payroll. The results are set out in Tables 8.1-8.5 of the data in Volume VII. The terms "contributions" and "costs" as used in the tables are not entirely precise as far as actual contributions and total employer's cost are concerned.)

Employer Contributions

Employee contributions are fairly stable; increases, if any, are generally made at the time a major new benefit is introduced. Employer contributions, except in money-purchase plans, vary from year to year since they reflect amortization payments covering that portion of the unfunded liability which is not covered by employee contributions. In addition to deficiencies caused by large salary increases or benefit changes, they are also affected by investment returns and valuation methods and assumptions.

Higher-than-average contributions could be due to:

- costly benefit provisions with lower-than-average employee contributions, e.g., Hydro and WCB Plans;

- closed plans with high average age/service introducing major benefit enrichment and incurring large past service costs, e.g., Toronto Civic Employees and Firefighters Plans;

- inadequate actuarial assumptions in the previous valuation which have to be corrected in the current valuation, e.g., assuming a lower rate of increase in salaries relative to investment return than was actually experienced;

- conservative actuarial assumptions, e.g., assuming a higher long-term rate of increase in salaries, relative to investment return, than is reasonable (resulting in a fund surplus);

- the actuarial method used to determine plan liabilities: valuation methods such as level premium result in higher estimated liabilities (and costs) than those which take account of accrued benefits only. The PSSF, the TSF, the WCB, and a small number of municipal and university pension plans are valued on a level premium basis.

Lower-than-average contributions could be due to:

- poor benefit provisions;

- long service required for vesting, and high turnover of non-vested employees;

- actuarial assumptions which are not conservative (which would subsequently lead to higher-than-average costs because of required deficiency payments);

- a valuation method which takes no account of future service, particularly in a relatively new plan with a young work-force.

Year-to-year fluctuations in contributions are accounted for by some of the factors mentioned above, and by:

- the introduction of new benefits and/or extensions of coverage entailing large past service costs;

- variations in escalation payments, if these are financed on a pay-as-you-go basis;

- changes in actuarial assumptions, method or data base;

- changes in the amortization schedule of special payments to suit the plan sponsor's budget requirements.

For all of these reasons, comparisons of costs between plans have to be viewed with considerable caution and it is very difficult, unless there is one obviously dominant factor, to draw conclusions as to why costs in one plan are higher than those in another or even to explain why costs have risen in a particular plan.

With few exceptions, the Public Sector Study questionnaire provided adequate information on historical amounts of employee and employer contributions. Unfortunately, in many instances, efforts to relate the contributions to the earnings of the plan members were unsuccessful due to the absence of comparable data on the covered payroll.

In a majority of plans (18 of 34) the employer's cost in 1977 was less than 8 per cent of pensionable payroll, though the heaviest concentration was in the 6 - 9.9 per cent range. In three plans, employer cost was far in excess of any others. These were the ONTC plan, in which the employer's cost was 20.2 per cent of pensionable payroll, including deficiency payments of 15.7 per cent; the Toronto Firefighters' Plan, in which the employer's cost amounted to 21.6 per cent, including deficiency payments of 14.1 per cent; and the City of Toronto Civic Employees' Plan, to which the employer paid 26.5 per cent including deficiency payments of 19.5 per cent. The latter two are closed plans which have incurred large past service costs as a result of benefit improvements. The high ONTC costs would appear to be explained by the employer's adherence in recent years to a relatively low current service contribution rate of 4.5 per cent, a rate that has obviously

been supported in actuarial valuations but which has resulted in increasingly high deficiency payments.

Among the major plans, Ontario Hydro had the highest employer cost in 1977, as in most years since 1971, amounting to 15.5 per cent of pensionable payroll. The basic provisions of the Hydro Plan are much the same as those in other major public sector plans, but employee contributions are lower. For the TSF, employer cost amounted to 13.7 per cent in 1977, an amount which can be attributed, in part, to inadequate actuarial assumptions in previous valuations and resulting large deficiency payments. For the PSSF the figure was 9.9 per cent. In HOOPP, the employer cost in 1977 was 7.7 per cent, a figure that actually seems quite high considering the high termination rates in the plan, the fact that no cost-of-living adjustments have been made, and that costs do not include projected service. Employer cost in OMERS is in the neighbourhood of 7 per cent.

A comparison of cost figures received in the study questionnaire for 21 plans which provided data back to 1971 shows that in 13 of these plans, employer cost rose between 1971 and 1977 while in the others it declined. In four of the major plans, employer cost rose: from 6.2 to 7.7 per cent in HOOPP; from 8.6 to 13.7 per cent in the TSF; from 9.2 to 9.9 per cent in the PSSF; and from 14.2 to 15.5 per cent in Hydro. Further consideration of these figures is undertaken in the chapter on costs.

ASSETS AND LIABILITIES

The estimated liabilities of pension plans are affected by the actuarial methods and assumptions used in the valuations. The effect of differences in actuarial methods is illustrated by a comparison of PSSF liabilities in 1976 when calculated on an accrued benefit projected basis and on a level premium basis. In the first case, the plan's liability would have been $1,562.3 million, and in the second case (the basis actually used for valuation) it was $2,617.8 million - a figure 67 per cent higher. In order to show liabilities on the same basis for all final average plans in the Ontario Public Sector, the accrued benefit projected method has been used throughout in the tables that follow. (These figures are not necessarily the same as those in Keith Cooper's report since the method used in the assessment is somewhat different.)

Although this adjustment removes one of the obstacles to meaningful comparison of liabilities, it does not eliminate all of them. First, use of the accrued benefit projected method does not resolve the problem of meaningful comparison of the liabilities of final average versus updated career average plans. In many career average plans, even where benefits are updated regularly, actuarial valuations of such plans do not necessarily take future salaries or service into account, with the result that a final average plan providing the same benefits could have

valuations showing liabilities 15 to 30 per cent higher than a regularly updated career average plan.

Secondly, and of wider significance, is the problem of adjusting for differences in actuarial assumptions underlying plan valuations. Some differences in actuarial assumptions reflect such factors as the employer's investment policy and personnel practices, while other differences tend to be more subjective. In any case, these differences can have a considerable effect on estimated liabilities. For example, Dr. Kelly notes that in a final average plan, an assumption of a 5 per cent long-term investment yield and a 5 per cent rate of increase in salaries would result in liabilities (and required contributions) close to 50 per cent higher than an assumed 8 per cent investment return and a 5 per cent increase in salaries.

Table 2 shows the assets and liabilities of the 20 largest public sector plans, ranked by size of fund. In most of the plans, including the five major ones, the figures for both assets and liabilities are given as of December 31, 1977 or December 31, 1978. In other plans, the figures are given for an earlier date in 1977, while in some the dates to which the figures relate do not coincide, the assets generally being shown as of December 31, 1977 and the liabilities as of six to twelve months earlier. Where the figures are taken as of the same date, the ratio of assets to liability is shown, using the higher of book or market value in cases where both values are available. Dr. Kelly noted that in general, there was very little difference between the book and market value figures, usually no more than 2 or 3 per cent. The major exception was Ontario Hydro, in which the market value of the fund was 9.6 per cent higher than the book value.

Table 2, taken from the public sector study, is based on answers to the questionnaire. It is useful in that it attempts a comparison of a large number of public sector plans on some consistent basis. The Commission has not relied entirely on the information in the table since more precise actuarial assessment reveals discrepancies in some of the figures. For example, the Workmen's Compensation Board had assets written up in the actuarial valuation of $73.5 million and liabilities of $54.8 million resulting in a ratio of 134 or a surplus funding position. However the comparisons are helpful, within their limitations, in obtaining an overall picture of assets and liabilities of public sector plans and also in showing the difficulties in comparing public sector plans from information sources currently available.

Table 2
Ontario Public Sector Assets and Liabilities of Pension Plans

Pension plan	Size of the fund: Book value	Size of the fund: Market value	Liability of the plan	Ratio of assets/ liability(a)
	(Millions of dollars)		(Millions of dollars)	(Per cent)
Teachers' Superannuation Fund(b)	3,370.5	Non-marketable	5,095.8	66.0
	as of December 31, 1978		as of December 31, 1978	
Public Service Superannuation Fund	1,459.0	Not applicable	1,870.2	78.0
	as of December 31, 1978		as of December 31, 1978	
Ontario Municipal Employees Retirement System(c)	1,079.0	85% non-marketable	919.0(e)	117.4
	as of December 31, 1977		as of December 31, 1977	
Ontario Hydro	970.5	1,063.7	1,073.1	99.0
	as of December 31, 1978		as of December 31, 1978	
Hospitals of Ontario Pension Plan	748.1	757.5(f)	831.3	91.0
	as of December 31, 1978		as of December 31, 1978	
University of Toronto	141.3	138.4	151.7	93.1
	as of June 30, 1977		as of June 30, 1977	
Colleges of Applied Arts and Technology	130.8	131.3	102.7	
	as of December 31, 1977		as of January 1, 1977	
Toronto Transit Commission	122.8	117.5	151.2	81.2
	as of December 31, 1976		as of December 31, 1976	
Metro Toronto Civic	117.5	114.2	250.7(e)	46.9
	as of December 31, 1977		as of December 31, 1977	
Metro Toronto Police	108.3	99.9	215.3(e)	50.3
	as of December 31, 1977		as of December 31, 1977	
City of Toronto (Civic Employees)	93.2	86.3	176.2	
	as of December 31, 1977		as of December 31, 1976	
City of Ottawa	67.2	63.2	69.7	96.5
	as of December 31, 1977		as of December 31, 1977	

Table 2 (continued)
Ontario Public Sector Assets and Liabilities of Pension Plans

Pension plan	Size of the fund: Book value (Millions of dollars)	Size of the fund: Market value (Millions of dollars)	Liability of the plan (Millions of dollars)	Ratio of assets/ liability(a) (Per cent)
Workmen's Compensation Board	64.4	64.0 as of December 31, 1977 (Actuarial value: 73.5)	54.5 as of December 31, 1977	135.0
Ontario Northland Transportation Commission	45.7	45.1 as of December 31, 1976	108.3 as of December 31, 1975	
McMaster University (Contributory) Plan)	43.3	43.1 as of December 31, 1977	124.4(e) as of June 30, 1977	
Queen's University	39.7	39.1 as of December 31, 1977	5.2(d)(e) as of August 31, 1975	
University of Ottawa	39.4	38.5 as of January 1, 1977	41.8 as of January 1, 1977	94.0
University of Waterloo	35.6	36.6 as of December 31, 1977	43.2 as of December 31, 1977	84.8
York University	35.6	36.0 as of December 31, 1977	18.0(d)(e) as of December 31, 1976	
University of Western Ontario - Academic Plan	31.7	31.8 as of December 31, 1977	28.5 as of July 1, 1977	

a Ratio not given where asset and liability data not as of the same date.
b The liabilities figure was estimated on accrued benefit projected method and updated to December 31, 1977, assuming an 8 per cent increase in active employee liability in the year 1977.
c The liability for OMERS has been calculated on the career average plan rather than the new final average plan in effect since January 1, 1978.
d Refers to the minimum guaranteed portion of a money-purchase plan.
e Includes liabilities for future service.
f Actuarial value of fund assets on hand as of December 31, 1978.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data," Tables 9.1-9.10.

As Table 2 shows, the ratio of assets to liabilities varies widely, ranging from less than 50 per cent in the Metro Toronto Civic Plan (which, as noted, had deficiency payments amounting to 19.5 per cent of pensionable payroll in 1977) to 96.5 per cent in the City of Ottawa plan.

The dominance of the five major plans is indicated by the fact that these accounted for 80 per cent of the assets and 81.5 per cent of the liabilities of all public sector plans (excluding money-purchase plans, in which liabilities by definition are equal to the assets on hand, and a few small plans for which information was not obtained). These figures, it must be stressed, are no more than approximations since - apart from differences in the way liabilities are calculated - this calculation ignores differences in the dates to which the assets and liability figures relate. The figures, however, give some impression of the relative importance of the major plans.

Subject to the same qualifications, Table 3 provides an indication of the magnitude of assets and liabilities by sub-sector and for the public sector as a whole. The influence of the major plans is evident in variations in the ratio of assets to liabilities between sub-sectors.

Table 3
Ontario Public Sector Assets and Liabilities by Sub-sector, 1977(a)

	Assets	Liabilities	Ratio of assets/liabilities
	($ millions)	($ millions)	(Per cent)
Provincial government	1,347.2	1,866.5	72.2
Municipal government	1,684.6	1,909.9	88.2
Health	659.7	757.2	87.1
Provincial utilities	957.7	1,158.3	82.7
Education	2,960.2	4,747.0	62.4
Total	7,609.4	10,438.9	72.9

a Figures are for the end of December 1977 as far as these were available. See detailed data in Table 2.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

Actuarial Valuations

Several comments were expressed to Dr. Kelly about actuarial valuation methods and assumptions and their implications.

The OTF stated that it was extremely concerned about the different assumptions used by different actuaries and about changes in assumptions from one valuation to another. The teachers said they would not change the current assumptions used for their plan; they make the plan more

conservative and perhaps safer. However, if the assumptions used in the latest (1975) valuation had been the same as those used in 1972, the plan's unfunded actuarial liability would have been one-half billion dollars less. In a supplementary document, the OTF noted that the change in actuarial assumptions in 1975 increased pension costs by 20 per cent, and it was estimated that the 1972 modifications in assumptions increased pension costs by about 30 per cent. Thus, within a span of a few years, it was deemed appropriate to assess the future cost of teachers' pensions at a 50 per cent higher level.

The supplementary document submitted by the OTF pointed out that benefits for teachers' service to date are close to being fully funded and that this financial position of the fund has continued to improve in recent years. It noted, too, that there was no actuarial agreement that funds like the TSF ought to aim for full funding of their pension obligations by the time contributors reach retirement. The pension security of Ontario's teachers rests ultimately on the provincial government's ability to pay the amount by which current benefits exceed current revenues from teacher contributions. The primary purpose of an actuarial valuation is therefore to obtain a fair measure of the future tax burden on Ontario residents. To date, the OTF added, the fund has been a source of financial support to the provincial government, and cash flow projections for the next decade indicate that revenue from teacher contributions will continue to be more than sufficient to meet the fund's total outflow.

Other employee groups which expressed views on the subject of actuarial valuations were OCUFA, the University of Toronto Faculty Association, and CUPE. OCUFA maintained that the failure of actuarial assumptions to match with reality was a matter of concern, while the University of Toronto Faculty Association stated that it would like to see variations in the degree of optimism used in actuarial projections about fund performance and salary increases, and an attempt at some form of impartial test valuation. CUPE noted that, in the past, the assumptions used by actuaries had not been subjects of contention. But since these assumptions have a tremendous effect on the costing of pension plans, it was expected that they would be negotiable in the future. It added that steel and auto workers unions had negotiated the actuarial assumptions of pension plans in the past and that currently there was a strike in the United States because of a disagreement about the assumptions used - the disagreement being over a difference of about 1/4 per cent in the interest rate.

A.W. Reeve, Executive Director of OMERS, stated that, despite all the explanations given by the actuaries, there was a strong feeling that pension plans are currently overfunded. For example, in OMERS, there were 47,000 employees who had retired or otherwise withdrawn from the pension plan but only 2,000 to 3,000 were receiving any sort of pension. The rest had just taken their money back. Mr. Reeve added that there was no study available showing the accuracy of past valuations in

predicting reality, and it might be that some special model was needed in order to be able to predict the future better.

Plan Valuation and Liabilities

Employees in the Ontario public sector are members of the following broad categories of plans: final average salary - 95.5 per cent; updated career average - 3 per cent; money-purchase - 1.5 per cent.

Final average plans - because their costing must take into account future salary increases - present the greatest challenge to the actuary, and offer the maximum opportunity for judgment and innovation in selecting and applying assumptions (see Volume II, Chapter 9).

Career average plans are less difficult to cost, since their benefits are based on known earnings - that is, up to the time of the valuation. Where such a plan is updated, on a regular or a once-only basis, it becomes in effect a final average plan (at least temporarily). The actuary's task is not rendered more difficult, however, since the salary base for accrued benefits is simply raised from one known level to another, more current level. Compared with a final average plan, the valuation results will show a significant difference. Because an updated career average plan makes no explicit promise of future updating, the actuary need not make any assumptions involving the likelihood or magnitude of future salary increases. In this way, an updated career average plan may show a distinctly lower cost at any given time than a final average plan, and at the same time produce equivalent levels of benefit. Costs in the longer run should favour the final average arrangement; but the deferral of cost under a career average plan may be attractive to some employers.

Since final average pension formulas generally appeal to employees, their higher immediate cost has not prevented their being widely adopted - in the private as well as the public sector. Employee satisfaction is not always based on the same perception of these types of plan, however. OMERS members, for instance, have expressed some dissatisfaction with the recent change from a career average to final average benefits. Many feel that the former provided a higher benefit at a lower contribution rate.

Money-purchase plans, by their nature, are fully funded and need no comment.

Valuation Assumptions

Forty-six valuations were reviewed, covering all plans in the Ontario public sector that are not money-purchase plans.

These valuations were made by fourteen different actuarial firms, and the assumptions varied considerably. Examples of some of the as-

sumptions relating to salary and interest, withdrawals and projections of the Year's Maximum Pensionable Earnings under the CPP illustrate the extent of these variations.

There were wide variations in assumptions for inflation in both investment return and salary projections. The average figures were about 4-1/2 per cent for salaries and 6 per cent for investment return. Other valuations used differentials of 1 per cent, or 0 per cent.

Withdrawal rates assumed can make a significant difference in liability calculations, particularly when the accrued benefit method is used. Some valuations based these rates on age alone, some on age and service, some on tables not directly related to the experience of the plan, and some took no account of withdrawals.

The rate of the YMPE increase is established by legislation; yet at one end of the scale there were assumptions of 12-1/2 per cent for years to 1980 or 1983 and 4 to 5 per cent thereafter, and at the other, assumptions of 0 to 5 per cent for all years from 1977.

There were other differences in the assumptions used, but the above examples will show that the liability figures shown in Table 2 give only a very general indication of the obligations of these plans.

Book and Market Value of Assets

The ratio of funding to liabilities was also not given on a consistent basis: some pension plans indicated that the market value of assets was not available, while others showed market values (see Table 2). This did not affect the funded ratio of the Public Service Superannuation Fund or the Teachers' Superannuation Fund, but it could have significantly affected the funded ratio of all other plans, especially if assets were valued on the basis of capitalized values for fixed income assets.

MANAGEMENT BOARD GUIDELINES

Disparities in funding methods and actuarial assumptions were of concern to the government before the appointment of this Commission. An attempt was made to bring some consistency to the valuation of public sector plans by developing guidelines in consultation with the actuaries of the five major plans. These guidelines were approved by Management Board in November, 1976. They were intended to apply first to the five major plans and to be amended in the light of experience before being applied to other plans in the public sector. The complete text of the Guidelines is printed as Appendix B to Keith Cooper's report in Volume VII.

The guidelines require: complete disclosure of all pertinent facts; valuations based on projected as well as accrued benefits; and ten-year cash flow projections using short-term assumptions which are realistic in each case - rather than relatively realistic as a package, which often applies to long-term assumptions. The Public Service and Teachers' pension plans have already modified their computer data banks and programs to meet the guideline requirements, and it is anticipated that the other major plans will do so.

As is noted in the preamble to the guidelines:

> "The guidelines for the valuation of public sector pension plans do not attempt to establish the basis for the triennial pension plan valuation required under the provisions of the Ontario Pension Benefits Act. They are intended to provide the basis for a common approach to the valuation of pension plans related to the Ontario public sector."

Such guidelines are the first step towards some consistent policy. At the other end of the spectrum is the approach of the U.S. Department of Labour which has proposed changes requiring uniformity for actuarial reports filed annually by employee benefit plans. The proposed changes include:

(i) a requirement that actuaries use only one method to report the present value of accrued benefits;

(ii) a requirement to indicate the actuarial methods and assumptions used; and

(iii) a requirement to report the present value of vested benefits and accrued non-vested benefits based on current compensation levels and entitlements.

The Commission would adopt a middle course between these two approaches. It rejects the idea of only one method for reporting. It has recommended that the public sector plans use one of two methods, recognizing that cost control may require a choice. It would go further than the guidelines, however; it would lay down specific requirements for the valuation of public sector pension plans under the Pension Benefits Act, and would apply those requirements immediately for all the plans. Areas not covered by specific requirements should be covered by guidelines similar to those of Management Board, particularly for an ongoing assessment of the funding status of the plans and their cost. Recommendations for these guidelines are set out in Chapter 5 (Present and Future Costs).

The Commission recommends for all public sector pension plans as applicable that:

The Pension Benefits Act and regulations be amended to require that all pension plans in the public sector having assets of $150 million or more file an annual actuarial valuation with the Pension Commission of Ontario within nine months of the fiscal year end of the plan.

The Government of Ontario take immediate steps to place all public sector pension plans on the same fiscal year end and to co-ordinate the filing of actuarial valuations so that those plans reporting triennially will all report for the same period.

For actuarial valuations of all public sector plans, a basis for actuarial assumptions be prescribed as follows, with the assumptions derived from such basis to be subject to the approval of the Pension Commission of Ontario:

a) the investment rate of return, setting out separately:

    (i) the inflation rate forecast for pension purposes by the Treasurer of Ontario;

    (ii) the real rate of return;

    (iii) the risk factor, provided that where the fund is invested in Canada or Ontario debt instruments no risk factor be taken into account; where the fund is invested in other market securities, all factors to apply; where the fund is invested in both categories of investment, the applicable rate be applied to the appropriate portion of the fund;

b) the salary scale, setting out separately:

    (i) the inflation rate, being the same as that used for the investment rate of return;

    (ii) merit increases;

    (iii) productivity;

c) the YMPE set for the year by Canada Pension Plan legislation,

and that decremental assumptions for mortality, disability, and terminations be assessed against actual experience every three years for each of the PSSF, TSF, HOOPP, Hydro, and such others which become large enough to produce significant results, and that such assumptions be set by the plan actuary taking into account such actual experience, and that for this purpose a regular demographic forecast be undertaken by the Government of Ontario for each plan, and data maintained for assessing the experience of the plan against the forecast.

The Commission is not in favour of removing from the judgment of the actuary areas where judgment is clearly needed. It does however seek to remove areas of inconsistency such as those found in varying inflation rates between rates of investment return and salary projections and in use of a YMPE other than those set by legislation. It should be noted that the interest rate as such would not be fixed under the Commission's recommendations; rather, the inflation element of the rate would be fixed. It seems to the Commission that the Treasurer is in the best position to make a forecast of the inflation element to be used for all public sector plans. The overall interest rate determined for the plan by the actuary would continue to be subject to the approval of the Pension Commission of Ontario.

Once the funding patterns of the public sector plans are put on a more consistent footing, both for the individual plan and for all the plans, it will be possible to achieve a more realistic assessment of the cost of the plans than has hitherto been possible.

NOTES

(1) The Superannuation Adjustment Benefits Act, 1975, 1975 Statutes of Ontario, Chapter 82.

(2) Ibid., section 4.

(3) Ibid., section 8.

(4) Ibid., section 1(1)(a).

(5) Ibid., section 10.

(6) Ibid., section 11.

(7) Ibid., section 13(2).

LIST OF TABLES

Chapter 4

Investment

INTRODUCTION

Funding and investment go hand in hand in pension planning. The assets accumulated by contributions required by the funding pattern are invested to create further assets to pay the eventual benefits. Because public sector plans have adopted the same funding techniques as private sector plans, return on investments has come under scrutiny by both the public and the plan members. Investment performance affects the cost for the taxpayer, and security and potential benefit improvements for plan members.

The practice of crediting "special accounts" in the Consolidated Revenue Fund and the use of non-negotiable debentures to represent assets have been criticized on the ground that investment returns are below the level which could be reasonably expected from market investment. The Commission therefore examined both practices and yields in public sector plans.

CURRENT INVESTMENT PRACTICES

A discussion of pension fund investment practice in the Ontario public sector must begin by drawing a basic distinction: all plans have investments, and most plans invest like private sector plans - that is, in financial market instruments. Some hold only non-marketable debt instruments of the province. Not all plans are totally in one category or the other. OMERS started out by investing only in non-marketable debentures, but in recent years has begun to diversify its portfolio and is gradually beginning to look and act more like a private sector plan.

For those plans that invest through financial markets, there is a further division: most of the smaller plans fund through insurance company guaranteed annuities or deposit administration plans. These insured or partly-insured plans cover only a small proportion of the persons covered in public sector plans, although about one-third of the plans are in this category. The only large plans to use this approach are the two pension plans of the University of Western Ontario, which had, in total, more than 70 per cent of the assets invested in this manner by public sector plans.

The investment of the pension fund assets falls within one of the following categories: non-marketable, market, and deposits with insurance companies.

Non-market Investing

The Public Service Superannuation Fund, the Legislative Assembly Retirement Allowances, and the Teachers' Superannuation Fund are now the only plans to use this approach exclusively. (Funds under the Superannuation Adjustment Benefits Act are also handled this way). Nevertheless, these funds loom so large in terms of the public sector and as a proportion of all Province of Ontario debt that they warrant close consideration. The assets of these funds are included in Table 1.

As at March 31, 1979, the province's accounts showed a liability of $1.551 billion in respect of the PSSF, compared with $1.324 billion a year earlier. This shows simply as an account within the Consolidated Revenue Fund, and no further segregation of the assets of this fund occurs. Interest is credited to this accounting entry amount at rates determined by the Treasurer. That interest rate has risen steadily. In 1965 the rate was 4.8 per cent. Annual deposits thereafter earned 5 per cent until 1971 when they rose to 6 per cent. In 1973 a formula was set for the fund which provided that interest credited on annual deposits would equal the weighted average yield of new bonds issued by or guaranteed by the province in Canadian dollars during the fiscal year. The effect of this formula was that by 1976 the return on the total fund had risen to 7.6 per cent and it will be much higher by now.

The other plan which uses this book entry approach is the Legislative Assembly Retirement Allowances. As at March 31, 1979, this account stood at $16 million, compared with $12 million a year earlier.

These two funds and the SABA funds do not really exist as separate entities in terms of having actual investments over which the fund has any control. The Teachers' Superannuation Fund is different in that it does have actual holdings of special Ontario debt instruments. As at December 31, 1978, its portfolio stood as follows:

	Thousands of dollars
Province of Ontario debentures at cost:	
6% due November 1, 1982	$ 74,200
6% due November 1, 1987	176,000
6% due November 1, 1992	454,500
8.57% due May 1, 1996	18,000
8.57% due November 1, 1996	74,000
8.57% due January 1, 1997	18,000
8.57% due March 30, 1997	62,000
7.86% due May 1, 1997	25,500
7.86% due November 1, 1997	84,500
7.86% due January 1, 1998	9,500
8.06% due April 2, 1993	50,000
8.06% due May 1, 1993	32,000
8.06% due October 1, 1993	5,000
8.06% due November 1, 1993	92,000
8.06% due January 1, 1994	16,000
8.39% due April 1, 1999	2,600
8.39% due May 1, 1999	46,000
8.39% due September 30, 1999	40,000
8.39% due November 1, 1999	117,000
8.39% due January 1, 2000	80,500
10.04% due May 1, 1995	50,000
10.04% due November 1, 1995	119,500
10.04% due January 1, 1996	28,000
10.11% due May 1, 2001	59,000
10.11% due November 1, 2001	74,000
10.11% due January 1, 2002	132,000
10.11% due February 1, 2002	10,500
10.11% due March 1, 2002	17,500
10.11% due March 31, 2002	41,500
9.82% due May 1, 2002	62,000
9.82% due November 1, 2002	80,000
9.82% due January 1, 2003	230,000
9.82% due January 1, 2003	108,000
9.82% due March 30, 2003	8,000
Deposits with the Province of Ontario to be used in purchasing Province of Ontario debentures	187,719
	2,685,019
Accrued interest	63,022
	$ 2,748,041

Source Teachers' Superannuation Commission, Report to Contributors for year ended December 31, 1978.

Using these year-end 1978 data and comparing them with the Public Accounts three months later, we find that Ontario debt instruments held by the Teachers' Superannuation Fund formed about 28 per cent of the outstanding net debt of the province. Adding in the amounts stated as owing to the PSSF and LARA at that date, approximately 45 per cent of the debt of the province was owed to these three funds.

OMERS is a special case. From January 1, 1963 to December 1, 1974, all investments were in non-marketable Ontario debentures. From January 1, 1975 to December 31, 1978, investments were in marketable and non-marketable securities. Since then all funds have been invested in the open market.

At December 31, 1978, OMERS held $1.293 billion in non-marketable debentures (which would have represented about 13 per cent of outstanding net debt of the province). Average term of the debt was 21 years, and the average interest rate was 9.07 per cent.

Market Investing

Some large pension plans, university pension funds, and those with independent investment management policies invest in conventional fashion; that is, the funds hold marketable bonds, short-term deposits, stocks, and mortgages. Not all funds invest in all these asset classes, but most have the kind of diversification characteristic of private sector plans generally.

The Ontario Hydro plan showed a market value portfolio at December 31, 1978 of $992 million, with the following approximate distribution:

	Per cent
Bonds	27
Stocks	31
Mortgages and real estate	29
Other	13

The Hospitals of Ontario Pension Plan had $775.75 million market value at the same date, of which the approximate distribution was as follows:

	Per cent
Bonds	46
Cash and accrued items	4
Stocks	32
Mortgages	18

HOOPP and Hydro's asset mixes were typical of private sector plans' asset mixes at that time.

Of the other major public sector plans, the universities (except the University of Western Ontario) invest in diversified portfolios, in most cases using professional investors to manage their portfolios. Asset mixes vary depending on the willingness of individual plans to invest in equities but, as a group, the universities invest in much the same way as private sector plans. The Workmen's Compensation Board in its December 31, 1978 report showed a $73 million portfolio at book value, with bonds representing about 73 per cent, mortgages 12 per cent, and stocks 15 per cent.

Funds which invest in the market have independent investment management policies, exercised either through in-house groups or institutional investment managers. Thirty-three funds in this category are included in Table 1.

Deposits with Insurance Companies

This category includes the assets of most of the smaller plans and a few large ones. Table 1 includes data on plans which have only part of their funds invested with insurance companies.

Table 1 shows the amount and percentage distribution of investments in each sub-sector by type of investment instrument, as of December 1977 or latest available date. The table covers all the larger plans in each sub-sector, and the figures come close to representing 100 per cent of all plan investments. The classification by investment instrument had to be made in some cases on the basis of arbitrary assumptions, since the records of some plans provided much less detail than others or were classified on a different basis than specified in the public sector study questionnaire. Generally, the broader the classification (e.g., debt, equity, mortgages, short-term investments) the more accuracy may be assumed.

The dominant feature of the table is the large proportion of the fund portfolios accounted for by Ontario Treasury deposits or non-marketable provincial debentures in the various sectors: provincial government (95 per cent); municipal government (56 per cent), and education (84 per cent). In the health and provincial utilities sub-sectors, which are not subject to investment restrictions by specific legislation, a higher proportion of funds is invested in bonds than in other instruments - 43.5 and 35.5 per cent respectively. There is little difference between the two in the proportion invested in equities - 29 and 32 per cent respectively - but the health sub-sector has a significantly lower percentage of its assets in the form of mortgages and real estate, and a much higher proportion in short-term investments and cash on hand. The distribution of investments in all sub-sectors, excluding Ontario Treasury deposits and non-marketable provincial debentures, shows 44.7 per cent invested in debt instruments, 27.3 per cent in equities, 23.6 per cent in mortgages and real estate, 3.6 per

Table 1
Ontario Public Sector Pension Fund Investment Portfolio, by Sub-sector and Investment Instrument, December 1977 or Latest Available Date

Investment instrument	Government		Health		Municipal		Education		Utilities		Total	
	($M)	(%)	($M)	(%)	($M)	(%)	($M)	(%)	($M)	(%)	($M)	(%)
Debt (bonds)												
Public	29.6	2.1	88.8	13.8	230.2	14.1	26.6	.9	128.1	17.5	503.4	6.9
Private	18.9	1.4	191.1	29.7	196.7	12.0	83.2	2.9	132.4	18.0	622.3	8.5
Combined (no breakdown)							47.7	1.6			47.7	.7
Equity (stocks)	11.6	.8	185.9	28.9	122.0	7.4	163.5	5.6	233.6	31.9	716.6	9.8
Real estate					16.0	1.0	.6	(a)	.3	(a)	16.9	.2
Mortgages	7.9	.6	121.3	18.9	149.1	9.1	92.4	3.2	228.2	31.1	598.9	8.2
Other real estate and mortgage (no breakdown)							4.2	.1			4.2	.1
Short-term investments	1.3	.1	28.7	4.5	5.0	.3	22.3	.8	.7	.1	57.9	.8
Cash on hand	(a)	(a)	22.0	3.4	4.0	.2	8.4	.3	1.4	.2	35.8	.5
Other (accrued interest and net receivables)	(a)	(a)	.6	.1	2.1	.1	2.8	.1	8.9	.1	14.4	.2
Insurance company deposits			4.8	.7			1.8	.1			6.6	.1
Ontario treasury deposits or non-marketable provincial debentures	1,324.0	95.0			913.3	55.7	2,457.8	84.2			4,695.2	64.1
Total(b)	1,393.4	100.0	643.1	100.0	1,638.5	100.0	2,911.4	100.0	733.6	100.0	7,319.9	100.0
Number of porfolios included(c)	4		5		8		17		2		36	

a Indicates less than .1 per cent.
b Totals may not add due to rounding. Also figures summed do not correspond in all cases to the data in the Assets and Liabilities Table in the Funding Chapter, which may apply to a different date.
c Some pension plans did not provide information regarding their portfolios.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Plan Data."

cent in short-term investments and cash on hand, and .8 per cent in other instruments.

INVESTMENT YIELDS

The public sector study asked plan sponsors to provide information on investment yields for each of the last ten years, for both book and market values, taking into account investment and interest income, including capital gains and losses, less administration and other expenses. Although few plans were able to provide this information for each of the ten years, and most were unable to give yields on both a book and market value basis, it is possible to show average annual yields on one basis or the other for 20 plans over the period 1972-77 and for another eight plans over other recent periods of four to five years. For HOOPP, figures were obtained on both a market and book value basis for the 1972-1977 period.

As indicated in Table 2, plans in which yields are expressed on a book value basis showed higher rates of return between 1972 and 1977 than those in which the yields are calculated on the basis of market value. While none of the 13 plans using the book value method showed rates of return below 5.5 per cent, six of the nine using the market value method showed lower yields. Basically, this reflects the slump in market values in 1973-1974. The significance of differences in approach is illustrated by HOOPP, which showed a book value yield of 6.4 per cent and a market value return of 5.3 per cent.

In plans which gave yields for periods beginning after 1972, the average annual returns were somewhat higher, presumably because of the rising new money rates after 1972. Perhaps indicative of this, the TSF, which is subject to investment constraints similar to those for the PSSF, showed an average annual return of 7.6 per cent over the period 1973-1977 compared with an average yield of 6.9 per cent for the PSSF over the period 1972-1977. Other factors, however, could also have a bearing on relative yields, such as growth in active plan membership and in the number of pensioners, both of which affect the amount of new money available for investment.

Table 2
Ontario Public Sector, Average Annual Investment Yields, Selected Plans, 1972-1977

	Book value	Market value
	(Per cent)	
York University		4.3
Brock University		5.2
Kitchener-Waterloo Hospital		5.3
Queen's University		5.3
City of Toronto Firemen	5.5	
McMaster University Contributory Plan		5.5
Ontario Stockyards Board	5.5	
City of Toronto Civic	5.8	
University of Waterloo		5.9
University of Guelph	6.0	
Workmen's Compensation Board	6.1	
Ontario Hydro	6.3	
Hospitals of Ontario Pension Plan	6.4	5.3
Ontario Educational Communications Authority		6.6
Ontario Northland Transporation Commission	6.8	
City of Ottawa	6.8	
Public Service Superannuation Fund	6.9	
Nipissing University College	7.2	
Borough of York	8.1	
Ontario Municipal Employees Retirement System	8.3	
Hospital for Sick Children		6.2
1972-1976		
Kingston General Hospital	8.5	
Toronto Transit Commission	13.0	
1973-1977		
McMaster University Non-contributory Plan		6.5
University of Toronto	6.7	
Teachers' Superannuation Fund	7.6	
1974-1977		
Ryerson Polytechnical Institute	8.7	
Colleges of Applied Arts and Technology	9.0	
Wilfrid Laurier University		12.9

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Pension Study Data."

How well do the public sector plans do as investors? This question was frequently raised at Commission hearings and in briefs received from plan members, retirees, and unions.

Direct comparisons of fund performance with that of pension funds in the private sector are likely to be impossible, or at least misleading. For instance, funds whose assets are based on non-marketable provincial debentures or simply accounting entries do not lend themselves to performance comparisons with plans using conventional investments. Interestingly, published data for the former show yields in the mid-1970s well in excess of those generally reported by private sector plans, whose performance was severely affected by a sharp cyclical attrition in the market value of stocks and bonds.

Comparisons based on data produced by various commercial measurement services is possible only where a particular fund can be valued at market prices. Even those public sector funds which invest in the open market generally do not make public their rates of return on a comparative basis. Their statements show investment income, from which rates of return may be calculated, but these are misleading even for marketable bond portfolios unless price changes are shown; they can be very misleading for portfolios with significant equity content. The sharp rise in stock prices in Canada since 1974 has been accompanied by rising dividends, but pension funds have experienced most of their investment returns through capital appreciation, which may not show in the "interest received" category at all, or only if trading profits are realized.

Thus it is impossible to draw any conclusion about the performance of the public sector investments, except to observe that asset mixes would have been decisive in determining how well the portfolios performed. According to A.G. Becker (Canada) Ltd., the median annual rate of return on the various asset classes by Canadian pension funds in the four years ending December 31, 1979 was as follows:

	Per cent
Bonds	8.3
Mortgages	10.4
Canadian equities	20.1
Foreign equities	17.5
Total fund	12.8

Since the median Canadian equity exposure of the funds in the survey during that period was 34.4 per cent and the median exposure to foreign equities was 5.7 per cent, the likely investment performance of the various public sector plans could be derived from their investment in stocks. On that basis, funds not invested in the market have been

hurt in recent years, although this was assuredly not the case in the five prior years.

Interest rates on debentures held by the TSF are related to market rates on new provincial borrowings at the time the fund obtains a new debenture. This was not always the case, but the province has made extra payments to the fund and unilaterally raised the interest rates on previously issued debt instruments in order to make the fund's earnings approximate what it could have earned in the open market. (By Section 7(5) of the Teachers' Superannuation Act the debentures issued to the fund shall bear interest at a rate which is "not less than the weighted average yield to maturity of long-term securities issued or guaranteed by the Province payable in Canadian dollars and sold to the public during the Province of Ontario fiscal year next preceding the date of the debenture.")

The most recent actuarial valuation for the TSF used an assumed long-term rate of return for the fund of 7 per cent; the actuary valued the debentures held in relation to this assumed yield. Thus for purposes of the valuation, all debentures having a coupon rate of less than 7 per cent were included at a discounted value to reflect an assumed yield of 7 per cent, and those with a higher coupon were valued at a rate above par. The effect of this technique is that the fund has not suffered in recent years due to market deficiencies compared with bonds held by private sector plans and valued (by the actuary) at market. Many private sector plans use the same valuation technique as the TSF, and their investment experience would thus have corresponded to the TSF's in recent years to the extent of their holdings of long-term bonds.

Since the PSSF uses, in effect, a similar technique for setting the interest rate on new deposits, it is probable that the long-term rate of return of the two funds will be comparable. Why, then, does the PSSF not use non-marketable debentures to at least formalize its situation? Officials in the government advise that the PSSF practice is purely historical. The legislature decided in 1920 that the fund would be part of the Consolidated Revenue Fund, and the practice has continued.

The relevant question is whether rates of return on public sector pension funds have been lower than would have been attained under a different investment policy. In retrospect, it is always possible to identify investment policies that would have been more profitable than those which were followed. But it is also possible to point to policies that would have yielded poorer returns. Nevertheless, there is a legitimate question as to whether the returns earned on the PSSF and TSF have been as high as could reasonably be expected, considering that the yield on Ontario government bonds is lower than that which can be earned on such securities as corporate bonds and mortgages.

In theory, the higher return earned on the latter types of investment represents a "risk premium" and in the long run, according to theory, the net returns should be the same. In other words, say some economists, it should make no difference what one invests in. Yet the fact that, given the opportunity, pension plans do diversify their investments and pay for advice as to how to do this indicates that it does matter.

The view that pension funds should earn a return greater than that on the most secure types of investment was expressed by the late Dr. John Deutsch in his report to the Federal Minister of Labour as Commissioner of Inquiry into Railway Pensions in December 1973. Commenting on what the railway pension funds should be expected to earn, Deutsch concluded that

> "with reasonable investment expertise, the companies can be expected to earn a net rate of return on new money about one percentage point higher than the estimated long-term Canada bond rate, that is, a long-run rate of return of 8 per cent."

In calculating this net differential, which translated into earnings 14 per cent higher than the projected long-term Canada Bond rate, Deutsch was making a reasonable allowance for risk and investment management costs. Since the differential between long-term Ontario government bonds and long-term Canada bonds has been less than 14 per cent, it might be concluded, on the basis of Deutsch's view, that the PSSF and TSF should be yielding a slightly higher rate of return than they have achieved.

Current policy with regard to the investment of pension funds in the PSSF and TSF is much the same as that followed by the British Columbia government. However, in Quebec and some of the smaller provinces, employee contributions are invested partly in the private sector. In its 1978 budget, the Ontario government indicated that the OMERS private investment program is a prototype to be considered for the TSF when making a transition to private market investment.

THE OMERS EXPERIMENT

OMERS is moving from a totally passive approach of holding only non-marketable debentures to a conventional approach, with all new cash flow being invested in the open market.

Although this change only began in 1975, and although full commitment of new cash flow to the open market only began in 1979, the effects are already apparent. By year-end 1979, 36.9 per cent of the $2.052 billion (book value) OMERS portfolio was in marketable investments - bonds, mortgages, short-term deposits, and real estate. The rapid transformation of the asset mix is apparent when one realizes that the

marketable securities component rose 108 per cent in 1978 and 131 per cent in 1979, and is projected to grow at 50 per cent in 1980 and 40 per cent in 1981.

Operating under the guidance of an investment policy advisory board, the OMERS investment staff has built up this portfolio swiftly without distorting capital markets - in part because the equity investments have been so diversified. Of the $142 million (book value) in equities at December 31, 1979, $10.1 million was in Canadian mutual funds, $30 million in U.S. mutual funds, $3.6 in Pacific (Asian) mutual funds, $27.6 million in individual U.S. stocks, and just $65.8 million in individual Canadian stocks.

OMERS is being managed to provide secure pension benefits for its members, and the diversification of investments is being undertaken in pursuance of that goal. As such, OMERS will be a useful example if the other large public sector funds are permitted to invest in marketable securities in the same way as private sector funds.

THE PUBLIC'S VIEWS ON INVESTMENT

Two unions were critical of investment policies followed with respect to public sector pension funds. Along with two other employee groups, they proposed that there be greater diversification of public sector pension fund assets.

The Ontario Public Service Employees' Union (OPSEU), contending that the PSSF had been mismanaged, noted that private sector pension funds had diversified assets, and the bonds which they held were diversified with regard to their term structure. By comparison, PSSF assets were invested exclusively in 25-year non-marketable bonds (sic). It was the union's view that the government treats the public pension funds as a captive source of cheap capital; hence, pension funds have become a dumping-ground for low-yield securities that no one else would take. It added that the lower risk of provincial bonds cannot explain the difference in yield. The most secure mortgages have no greater risk than provincial bonds, but have a higher yield. OPSEU thought diversification should be accomplished through union control of the plan.

In its brief to the Commission (Brief 208), OPSEU observed:

> "One cannot but be intrigued by the portfolio composition of the private sector in contrast with the PSSF. Unless it is assumed that there are serious irrationalities or frictions constraining the private sector fund managers, one must conclude that by the standard of private funds, the PSSF portfolio is unbalanced.
>
> "The question of balance among various maturities also warrants attention. In a period of inflation, and especially in a period of

unpredictable inflation, pension funds try to acquire assets that preserve their real rate of return. Variable mortgages are one such instrument. Funds will also increase their holding of shorter-term assets. Yet in the case of the PSSF we witness a year-after-year policy of acquiring fixed term bonds of 25 years duration (sic). It is unimaginable that any privately managed fund would adhere to such investment strategy."

The views of the Canadian Union of Public Employees (CUPE) on this issue were outlined in its brief to the Commission (Brief 101). It stated that the provincial government, by excluding public employee pension funds from the legislative rules which pertain to the private sector, had created a preferred relationship for itself, a consequence of which is that public sector pension funds have had a distorted and, depending on market conditions, imprudent asset mix. This has done injury to the interests of both plan member beneficiaries and the taxpayer. The union proposed that public sector funds should be invested according to the same legislative guidelines and rules as are private sector plans and that the concept of fiduciary responsibility and the "prudent man" rule should be expressly outlined in the legislation applicable to both private and public sector pension funds. Co-management of pension fund assets was recommended.

Although not openly critical of government investment policies, the Ontario Teachers' Federation (OTF) advocated a more diversified policy with respect to TSF assets. OTF recommended more money be invested in the private sector, starting with perhaps 10 to 20 per cent of surplus funds in a given year. It was impressed with the high-calibre people that OMERS had been able to find to guide its pension investments. Given its desire that the government continue to be the guarantor of teachers' pensions, OTF would be willing to accept a provision for government approval of investment decisions in order to ensure that all investments are in high-quality, low-risk financial instruments.(1)

The Management Employee Group of the public service identified the exclusive use of pension funds by the government as one of the weaknesses of the PSSF, and recommended that part of the assets go into short-term securities. Greater diversification was also recommended by Mr. C.G. Millard, Northern College of Applied Arts and Technology, who suggested that at least some portion of the public sector pension funds should be invested similarly to the college's pension plan, trusteed by OMERS. The National Union of Provincial Government Employees was critical of the practice of governments across Canada in tapping public sector pension plans for general revenue purposes.

Several submissions commented favourably on the investment record of OMERS in recent years. Other briefs to the Commission supported the market investment of public sector pension funds:

Ontario Hydro in its Brief No. 299 recommended:

"Pension fund investments, public and private, be directed largely into productive assets. Funds should be invested as much as possible in corporation bonds, mortgages, real estate ownership, equities, and those government bonds where there are indications that the funds will likely flow through to infrastructure.

"Governments do more to indicate the purpose for which they are borrowing money through bonds issues."

Mr. D.A. Sheppard, Brief 143

"... most of the pension funds in OMERS to date have been invested in government of Ontario bonds paying interest at less than fair market rates. This cheats the members out of a higher return on their investment, and provides the provincial government with a cheap form of debt financing (leading to larger borrowings and increased inflation?)."

Ontario Advisory Council on Senior Citizens, Brief 154

"Public Service Employer-Employee Pension Plans

a. In general these pension plans should be administered in accordance with the legislative requirements for pension plans in the private sector.

b. Contributions should be shared equally by employer and employee, and should be sufficient to purchase benefits comparable to those available in similar pension plans in the private sector.

c. All contributions should be deposited in a trust fund and administered outside the regular systems for general government receipts and expenditures. This trust fund should be subject to audit, perhaps by the Auditor General or his equivalent.

d. These trust funds should continue to be available for government uses but interest at regular rates should be paid and deposited in the trust fund. Government borrowing from trust funds should be through procedures similar to those used by government for borrowing on the open market."

Canavest House, Brief 180

"In the public sector, both national and employer level plans should be funded for the "cost visibility" reason and to create an aggregate capital stock which can provide future pensioner income in an era of increasing pensioner to active worker ratios.

"Public sector retirement saving should be allocated to investment uses through the normal capital market channels. This will ensure efficient allocation.

"Public sector retirement funds should be managed privately in the financial services sector with pre-established investment objectives. Fees should be established through competitive bidding."

Pension Investment Association of Canada, Brief 245

"Public sector pension plans should be financed, managed and invested in a similar manner as private sector plans. This would call for:

(a) full funding of public employee pensions,

(b) diversification of investment,

(c) investment in productive assets,

(d) use of capital markets, and

(e) an investment performance orientation.

"In this way, a significant portion of capital flows can be redirected out of the public sector, back into the private sector, where they are needed. It would also encourage Provincial Governments to compete for funds in the capital market as well as allowing public sector pension plans to earn market rates of return (versus government regulated returns). Forcing the government into the market will also encourage more productive uses of acquired funds (i.e., improving transportation, communication and energy development).

"In this way, the public would not feel their tax dollars were subsidizing public sector pension plans. Similarly, contributors to public sector pension plans would not feel they were subsidizing public programmes through limited investment alternatives."

Keith Cooper, in his report (see Volume VII), comments on the effects that the switch to market investment, which is so strongly advocated in the briefs to the Commission, would have:

"There are several observations to be made about the procedures being used by the Ontario government for handling the assets of the PSSF, PSSAF, and TSAF.

a) By investing funds externally, the government should be able to generate a larger investment return than it would have to pay for similar funds they would otherwise borrow on the

marketplace. This applies equally to the TSF. The OMERS experiment is truly supportive of this position.

b) By using real assets versus public debt, the government achieves at least the following two objectives:

- Plan members may experience a greater sense of security arising from the broader diversification of assets.

- Should any governmental entity experience cash flow difficulties overall, and thereby not be able to meet its financial obligations, a part of which would be the required payments to pension plan beneficiaries (after utilizing current employee contributions in this regard), then in the instance where "real" assets exist, such assets could be used to meet current commitments. In the case where public debt is used, the assets belong to the governmental entity and the interest or the repayment of such debt can only come out of current government revenues, which, if not available leaves the pension plan beneficiaries in jeopardy.

c) If non-public debentures were issued, then this would have the effect of increasing the non-budgetary deficit and the government's net cash requirements in an amount equal to the net pension flow through the Special Purpose Accounts. There would not be any change in the budgetary deficit.

The other beneficial effect of using non-public debentures would be that the government's outstanding debt would be more readily recognizable than is the case today. Under the present arrangements, the total Ontario debt can only be determined by adding to its funded debt (i.e. public debt and non-public debt) the value of its unfunded debt which includes the PSSF, PSSAF, TSAF Special Purpose Accounts, the deposits from the Province of Ontario Savings Office, and certain advances payable.

d) By accepting the net flow of funds from the various government pension plans (PSSF, PSSAF, TSF, TSAF, and previously OMERS), the government reduces its external borrowing needs. However, with decreasing future capital expenditures, there appears to be less need for these funds. Recognizing the desirability of having tax revenues pay for general expenditures and having capital expenditures come out of debt, it is incumbent on the government that they do not fall into the trap of deploying capital derived from net pension fund flows toward general expenditures or toward non-productive capital items. The government stated in its 1978 budget: 'In an effort to ensure the successful implementation of this redeployment of public funds from the public to the private sector, the Government

of Ontario initiated the OMERS experiment in 1975. This experiment has proven successful, and thought can now be given to instituting similar procedures for other sources of internal funds.' This intention is certainly healthy. The 1978 Ontario budget also stated: 'It (the investment of TSF funds privately) will not begin until after the report of the Ontario Royal Commission on Pensions has been received.'

The Ontario Government appears to be committed to deploying excess internally-generated pension funds to marketable securities. This position is healthy and should be encouraged."

SOCIAL AND ECONOMIC GOALS AND INVESTMENT

We have already noted the relationship between the build-up of economic resources in a country and the savings rate. We have also noted that pension funds do not constitute savings unless that government debt is invested in tangible assets that produce goods and services. Thus, a government bond issued to finance a school becomes part of the national savings process (unless the bonds were not acquired by a saver but simply monetized through excess creation of money by the Bank of Canada). In that sense, a school, a hydro plant, a factory, and a pipeline are all capital goods with long-range economic and social returns. Public sector pension plans which simply lend their reserves back to the government may not add to the provincial saving and investment process unless the government uses those funds for capital investment.

It is this latter factor which has been the subject of intensive economic analysis in studies issuing from TEIGA in recent years. These studies postulate that true savings produce two measurable rates of return: the income rate of return and the social rate of return.

A corporation contemplating the building of a new factory will conduct studies about the estimated rate of return on the capital invested in that project. The approach usually used by sophisticated corporate planners to select the capital investments which will actually go ahead is the "hurdle rate of return" concept, in which any major capital commitment must be shown to have the strong likelihood of generating a net after-tax rate of return that exceeds some pre-defined "hurdle" rate. Thus if, for example, the cost of capital to finance a project is 15 per cent then the hurdle rate of return would be at least 20 per cent. With that approach, competing capital investment recommendations from different operating groups within a company can be compared, and the most promising selected.

This may be compared with the social rate of return which is determined by adding the net after-tax rate of return of a corporation to the corporation tax paid. If that project in our example does in

fact generate an after-tax rate of return of 20 per cent (which would mean that it was far above the normal range of profitability of invested capital in Ontario), then, assuming a 50 per cent corporate tax rate the social rate of return would be close to 40 per cent.

It is this social rate of return which the TEIGA studies use as argument for the proposition that pay-as-you-go financing of the Canada Pension Plan is, in the long run, more costly than pre-funding, assuming that the reserves accumulated through pre-funding were invested in assets which generate a social rate of return. The Commission is not prepared to recommend total pre-funding for the CPP, for reasons discussed elsewhere. However, the TEIGA argument supports the position that the public sector pension funds should be invested productively.

Effects on the Capital Markets

The Commission believes that all public sector pension funds should be invested in the open market. These funds would strengthen capital markets generally, but would not inundate markets as a prefunded CPP would. To release these monies into capital markets would give added depth and liquidity to Canada's limited markets. Since the employees who contribute to these plans see their contributions as savings, and since the national accounts include such contributions in saving, they should be treated as saving and not as captive funds for government. These plans offer extremely generous benefits compared to most private sector plans, yet their existing investing process ensures that, in the long run, the funds will yield lower rates of return. Thus the ultimate cost to taxpayers is increased. Employees naturally are concerned that their contributions are not being invested as productively as they could be.

One objection to open market investment is that the province has become so dependent on these funds that any diversion of reserves into the open market will put severe strains on provincial finances. In fact, provincial treasurers have been aware of this incipient problem for some years; both the Hon. Darcy McKeough and the Hon. Frank Miller have publicly commented on the need for provinces to become "weaned" from their supply of captive funds. Some transition period will undoubtedly be necessary, but we believe strongly that the current use of non-market investing for the reserves of the PSSF, TSF and LARA should be discontinued. The same conclusion applies to SABA funds, in the event they are retained in the present segregated form.

A principal function of any transition period would be to avoid distortion of the capital markets. As noted above, OMERS has diversified sufficiently among Canadian, U.S., and foreign investments that its impact on Canadian markets has not been extensive. This is in contrast to the approach adopted by the Quebec Pension Plan in its operations through the Caisse de dépôt. The funds accumulated for the plan and in

the various provincial employee plans administered by the Quebec Pension Board have become major factors in the Canadian stock market.

If the Commission's recommendations for full disclosure of pension plan investments are adopted, the Commission believes that the dangers of using pension fund assets other than to earn the best return in relation to pension fund goals will be minimized.

Effect of CPP Investment Proposals

The Commission's proposals for the handling of the CPP fund will have important implications for provincial financing. In essence, they involve the maintenance of a contingency fund of twice the year's benefit and administration cost pay-out three years in advance (see Volume V). The funds in this reserve can still be long-term bonds because that reserve will grow. However, the funds are to be invested in real economic assets, not just passive debt, and through a roll-over plan the existing debt instruments are to be replaced by bonds having real backing. When this process is completed, the criticism that CPP has nothing but "ghost funds" will no longer be valid.

Although the Commission believes that only real assets should be used to secure future benefits, we are not recommending that CPP funds be invested through the open market. Rather, we suggest that the monies go into capital goods of Crown corporations, such as Ontario Hydro. Then the earnings of those capital goods can be used to finance the debt, rather than relying solely on future taxpayers. Other provinces also have utilities and Crown corporations engaged in performing basic economic functions that would provide a ready base on which these government bodies could raise funds needed.

Finally, the Commission's transition and roll-over proposals for the CPP permit both provincial treasurers and public capital markets to adjust to a new era in which provincial deficits can no longer be financed through relatively hidden sources of money. By providing for an orderly transition to greater financial discipline, no dislocation of bond markets should occur. Investors and treasurers will know years in advance the maturity schedules and refunding arrangements needed. By the turn of the century, both the CPP and provincial finances generally should be on a stronger footing.

RECOMMENDATIONS

The Commission is satisfied that the time has come for a radical change in the investment of assets in public sector pension plans. The financial implications for provincial finances may be disconcerting initially, but the results will be beneficial in the long run. Benefits should arise from:

1. separation of all pension fund assets from the regular accounts of the province;

2. improved and visible rates of return on pension fund assets;

3. greater amounts of capital available for private market utilization;

4. controls on public borrowing by virtue of government being required to borrow at market rates;

5. visibility of pension cost to government, taxpayers, and plan members;

The Commission therefore recommends that the Government of Ontario adopt a policy of investment for all public sector pension funds, including the funds to be created for the PSSF and the Legislative Assembly Retirement Allowances account, incorporating the following principles:

a) all investments should be in the form of marketable securities;

b) all funds and investments should be segregated from government funds, even on a short-term basis;

c) book entries such as those currently used for the PSSF, and non-marketable securities such as those now used for the TSF, should be discontinued and replaced as soon as practicable with marketable securities;

d) all future investments should reflect market rates of return;

e) some portion of the investment of a plan should be made in the private sector within the investment regulations of the Pension Benefits Act.

The adjustment of finances on the scale of those of the Province of Ontario is a delicate and difficult matter. As well as the recommendations for the Ontario public sector plans, the recommendations for CPP investing will have far-reaching effects on provincial financing. Accordingly, none of these changes can be made overnight. The gradual switch in OMERS investments provides a likely approach. However, some steps, such as segregation from the public accounts, can and should be undertaken now as part of the general restructuring of the pension fund accounts.

NOTES

(1) Keith Cooper comments on this point in his report (see Volume VII):

> "It should also be noted that the Ontario government guarantees the PSSF and TSF plans in its role as 'employer.' Before it can permit the assets of the TSF to be invested in marketable securities, the various school boards in Ontario would have to accept responsibility for the liabilities of the plan for the teachers in their jurisdiction as the municipalities have done in the case of OMERS."

LIST OF TABLES

Chapter 5

Present and Future Cost of Public Sector Pensions

INTRODUCTION

The question of cost is central to the discussion of public sector pensions. It has less significance theoretically in the private sector because the cost of pensions is ultimately a market decision. The Commission has no particular concern that company A's pension costs 20 per cent of payroll while company B's plan costs 10 per cent of payroll. It is a matter for the employer and employees. In the public sector, however, the pension cost is of interest not only to the government as employer and its employees, but to taxpayers and the public, who ultimately pay for the pensions and so have a valid interest in determining whether such costs are reasonable or taxpayers are enriching these plans unduly.

As was noted in the chapter on Funding Principles in Volume II of the Report, funding of pension plans has two main purposes:

1. to ensure that monies will be available to pay the promised benefits at the time they become payable;

2. to ensure an orderly accrual of funds over time to effect control of the ultimate cost of the promised benefits.

For plans in the private sector the emphasis lies on the security aspect, since the continuity and financial viability of individual employers cannot be assured. In the public sector, backed by the ultimate taxing authority of the government, continuity and financial viability are reasonably certain. However government does not have the same cost strictures as the private employer who is engaged for the prime purpose of making a profit. Therefore cost control is the prime reason for funding public sector plans. Simply stated: an assessment of the

funded status of a plan tells us whether sufficient monies are in the fund to pay the benefits; an assessment of the cost tells us how much we must pay for the promised benefits and allows consideration of whether or not the promised benefits are affordable.

WHAT IS THE COST OF A PENSION PLAN?

The cost to an employer of a defined contribution (money-purchase) plan is usually an amount equal to the employees' contributions. Sometimes the employer also pays administrative expenses. Similarly, the employer's cost for a defined benefit insured plan is generally limited to the employer's share of the premiums. Difficulties in establishing cost arise primarily with the defined benefit trusteed plan.

The actual cost of a defined benefit trusteed pension plan to an employer equals the total of

benefits paid out
plus <u>expenses incurred</u>
less employee contributions (if any)
less investment income earned.

This cost can be determined only in retrospect, i.e., after the last beneficiary has received the last payment promised. How then can the employer know what the "cost" will be and how can that cost be identified on a present day-to-day basis? Originally when pensions were paid on a pay-as-you-go basis the cost was clearly the amount paid out in any one year. However even then, to the extent the promise bound the employer for the future, there was a need to consider what the ultimate long-term cost to the employer might be.

With the introduction of "funded" pensions, where monies were set aside before benefits were payable, costs became linked to the annual contributions which the actuary estimated were necessary to pay the promised benefits in the future. These contributions included both the cost of the current year's promised benefits and the special payments required to pay for promised benefits for past service.

R.M. Skinner describes the effect of funding requirements on accounting for pension costs:

> "The discrepancy between the results of accounting for pension costs on a pay-as-you-go basis and accounting for recognition of costs associated with advance funding hastened reconsideration of the nature of pension costs. Further impetus to reconsideration was given by cases where employers varied their contributions to pension funds from year to year in order to affect cost and income reporting. A consensus gradually developed to the effect that pension contributions were not a voluntary outlay but rather a regular

cost of doing business. Notwithstanding any legal right of the employer to discontinue the plan and limit his liability, as a practical matter an employer who wished to continue in business could not withdraw benefits once they were granted. It followed that pension costs were part of the costs of earning annual income whether or not cash was paid over to the pension plan in the year and irrespective of the amount of such payment. This then raised the question how the cost was to be measured and led to the realization that a pension plan arrangement constitutes a particularly complex form of delayed payment transaction."(1)

The pension cost accounting problem involves "estimating the ultimate costs for which the employer will become obligated under the plan formula and allocating these costs in a rational way to employees' pre-retirement years, so as to provide a fair measure of deferred wage expense year by year."(2)

The difference between cost for accounting purposes and cost for funding purposes is set out in the Accountants International Study Group Study No. 18:

"There is an important distinction between accounting for annual pension costs and funding a pension plan. Accounting for costs is related to the build-up of pension obligations during the employees' working lives, whereas funding is a matter of providing sufficient assets to discharge such obligations as they become due. In any given year the amount of pension cost may differ very substantially from the amount required by the pension plan to fund future benefit payments. However, in practice the amounts charged as pension cost frequently coincide exactly with the amounts funded, but this is not always so, because, for instance, there may be good reasons for management adopting an unusual funding policy. It is thus important to bear in mind the distinction between the two. The cost determination is concerned solely with accounting, whereas the funding is a cash flow matter."(3)

Effect of Funding Method on Cost

We saw in Volume II, Chapter 9, how the choice of funding method affects the ultimate cost of a pension. For example, in a final pay plan there are at least three valuation methods an actuary could use. While any of these three methods might be chosen by the employer, which of them - if any - would the accountant choose for reflecting cost in the employer's accounts or financial statements? The answer is that the accountant will accept any of the three that may be chosen by the employer. While accountants say...

"the accrual concept requires that current service costs for employees should be charged to income as the service giving rise to the pension entitlement is rendered, and costs for previously

unprovided past service should be charged to income over the remaining term of the employment of the relevant employees."(4)

...they have not yet decided how best to do so either in Canada or the United States. Meanwhile, by and large, they use for accounting what is used for funding.

While recognizing the need for some freedom in the choice of funding method despite the resulting variability in cost, the Commission is in agreement with the Accountants International Study Group that, in the interest of identifying cost, there should be some limitation on the number of funding methods available for use by the actuary. The Commission is recommending for all plans that a range of methods be set by the Pension Commission of Ontario, and we see no reason why public sector plans should not use any of these methods depending on their suitability. Use of the level premium method will increase annual cost initially but will result in lower annual cost later on relative to costs under an accrued benefit method, because of interest earnings on the fund.

Complete Cost Picture

Accepting this variability in cost resulting from different funding methods, we consider what must be taken into account to achieve a complete picture of the cost of a public sector plan. We require the total arising from:

1. The year's service cost which includes:

   (i) Cost of the current year's promised benefits;

   (ii) The year's share of amortized cost for experience deficiencies, that is, where actuarial forecasts and actual experience result in less money being paid into the fund in any one year than is needed to cover the cost of benefits accruing during the year; these must be spread over not more than five years;

   (iii) The year's share of amortized cost for supplemental liabilities which result from changes in the plan, e.g., where the benefit structure is improved thereby creating benefits for past service which have not been paid for by contributions in past years; these must be spread over not more than 15 years.

2. Administrative expenses.

3. Ad hoc adjustments to benefits payable to retirees which increase pension benefits but which are not funded.

4. Superannuation Adjustment Fund contributions.

Costs As Reflected in the Public Accounts

In assessing the cost of public sector plans the Commission's first undertaking was to ensure that the cost figures being given to the public for the plans were in fact correct. For this purpose it engaged a chartered accountant who was aware of the special problems inherent in pension cost accounting. In his examination the accountant took the annual pension costs to be the same as the annual amounts for funding each plan. He found that such annual costs were similar to those found in the commercial world if the same actuarial methods were used. He also found that pension costs were accounted for in the Public Accounts of the province in accordance with generally accepted accounting principles, and commented that in a number of respects the Public Accounts disclosed more complete (and understandable) information about pension costs and such matters as unfunded pension obligations than did the financial statements of some large corporations in Canada.

However, in assuming that annual cost was equal to the annual funding amount, the accountant did not examine areas which, in the opinion of the Commission, render inappropriate or incomplete the stated actual costs of the major public sector plans. The problem is primarily visible if one considers the cost calculations over a number of years. The following analysis pinpoints the problem areas and gives examples of how they have arisen in various plans. However, the major point to be made is that the whole system for identifying cost of public sector pensions is sufficiently confused that an orderly and accurate assessment of overall pension costs and of the costs of the provincial government in relation to these plans, is not readily attainable. This is not to say that the figures presented by various plans and in the public accounts are erroneous or deliberately misleading, but rather to underline the urgent need to implement a system of recognition and control of overall public sector pension costs.

Problems Areas in Overall Cost Assessment

Separation of Cost Elements

Although the elements of pension costs are to be found in the Public Accounts, they are not always put together in such a way as to give a complete cost picture. If we take the Teachers' Superannuation Fund as an example we find various problems in the cost picture. The following items of cost must be considered:

1. Current service cost is limited by the matching contribution principle. The actuary for the fund notes that the annual contributions are insufficient by .8 per cent of payroll to meet the current service cost, quite apart from the supplemental liabilities. The additional amount required is not

being paid on an annual basis but over a 15-year period, and therefore does not show the correct current service cost of providing teachers' pensions. This will be cured if the matching contribution principle is abandoned or the amount set annually.

2. Supplemental liability payments requiring annual payments of 5.1 per cent of payroll;

3. Administrative expenses for the TSF, estimated to be about $10 million in 1978-79;

4. Superannuation Adjustment Fund government contributions in 1978-79 amounted to $22.36 million.

5. Superannuation Adjustment Fund government payments for non-contributors under SABA amounted to $24.3 million for the 1978-79 year.

Thus, to get a rough but complete "cost" for the TSF for the period 1978-1979 we have:

	$ Millions
1. Current service total required cost 6.8 per cent of $2 billion	136.0
2. Supplemental liabilities 5.1 per cent of $2 billion	102.0
3. Administrative expenses	10.1
4. Superannuation Adjustment Fund government contributions	22.3
5. Superannuation Adjustment Fund government payment for non-contributors to SABA	24.3
Total employer's cost	294.7
Employer's cost as a percentage of payroll of $2 billion	14.74%

If we add to the employer's percentage employees' contributions of 7 per cent (ignoring CPP contributions up to the YMPE but including the adjustment for indexing), the total cost relative to payroll (including adjustments for indexing) is 21.74 per cent.

Total payroll for the period would be slightly in excess of $2 billion; hence the costs are slightly understated. However, it is very clear that to talk of the cost of providing pensions for teachers in

terms of 7 per cent of salary (6 per cent plus 1 per cent for SABA) from the teachers and 7 per cent from the government is to ignore over one-third of the cost.

Prepayments and other Timing Changes

Prepayments (i.e., payments in excess of those required by the funding patterns of a plan) were made by PSSF and TSF during 1976 and 1977.

A quote from the summary of the actuary's recommendations in the actuarial report dated February, 1978 for the PSSF for the period ending December 31, 1976 is informative:

1. Increase the annual interest payment on the initial unfunded liability of $82,616,000 to $5,990,000 effective January 1, 1978.

   (NOTE: A prepayment of $5,577,000 was made at March 31, 1977. This payment was invested at 9.819 per cent interest so that its value at January 1, 1978 was $5,983,000. Consequently, for this item $7,000 was due at January 1, 1978).

2. Make thirteen annual payments of $16,884,000 from January 1, 1978 to January 1, 1990 inclusive with respect to the unfunded liability of $139,136,000 related to the deficiency revealed at December 31, 1973. These are to replace the thirteen annual payments of $16,021,000 from April 1, 1977 to April 1, 1989.

   (NOTE: A prepayment of $16,021,000 was made as at March 31, 1977. This payment was invested at 9.819 per cent interest so that its value at January 1, 1978 was $17,187,000. Consequently, for this item there was an overpayment of $303,000 as at January 1, 1978).

The policy adopted by Ontario Hydro in funding certain special payments also illustrates the cost effect of a failure to adopt a consistent procedure. This failure clearly disturbs the cost perspective. In the 1976 actuarial report for the Ontario Hydro plan it was recommended that certain new experience deficiencies allowed by the Pension Benefits Act to be treated as initial unfunded liabilities, be amortized over 15 years. The same liability was noted in the 1977 actuarial report to be amortized over 5 years.

> "In the cost certificate enclosed with the December 31, 1976 valuation, this experience deficiency was shown to be amortized over 15 years. Ontario Hydro was subsequently advised by their auditors to amortize it over 5 years."

In the 1978 actuarial report the same liabilities were again to be amortized over the remainder of the original 15-year period.

It should also be noted that, although a special payment of $10,472,000 for post-retirement adjustments to pensions required an additional annual payment of $1,047,000 for 15 years to be made, "no contribution was made on this account in 1977, so that in 1978 an additional payment of $1,047,000 plus interest is required, making a total of $1,110,000." (Hydro actuarial report for the period ending December 31, 1977).

Both prepayments and alterations in the timing of payments, while permissible and possibly advantageous in private sector plans, in public sector plans only serve to distort the true cost picture if cost is to be allocated in an orderly way over the employee's worklife (subject to amortization periods). We do not see the same need for the government as for business to increase special payments from time to time to reflect tax advantages or special cash flow situations. The Commission recommends that government policy embody the principle of orderly funding of pension plans to the full extent allowed by the Pension Benefits Act. In this way, distortions of cost resulting from over-payment, under-payment, or alterations in the timing of payment can be avoided.

Accumulation of Surplus

Over the period from 1970 to 1978 the Workmen's Compensation Board plan has been in a surplus position and that surplus has been increasing. At the end of the last actuarial valuation (December 31, 1977) the surplus stood at just over $13 million, having increased from $1.4 million at the end of 1970. No adjustment has been made to decrease proportionately the employer's contribution rate.

At the end of December, 1970, OMERS had a surplus of $23.2 million which continued to build to a high of $72 million at the end of December, 1974, falling to $60 million at the end of 1976. As of January 1, 1978 the OMERS basic plan switched to a final average formula, and the plan is no longer in a surplus position.

To allow a plan to reach a surplus position and then continue the building of such surplus is not, in the opinion of the Commission, a proper allocation of funds for a public sector plan; it results in a distortion of overall pension costs. If such a build-up of surplus is an invitation for improved benefits, those responsible for the plan decisions should not encourage this form of pressure. There is provision under the Pension Benefits Act to apply for a refund of surplus to the employer. In the case of the WCB, the Commission recommends that such an application be made immediately and the refund applied to the current service costs of the plan, which are paid for by employer premiums and represent a cost of doing business which in turn is reflected in the price to the consumer. No public sector pension plan should

normally continue in a surplus position for more than one valuation period.

Timing of Actuarial Valuations

The Commission has found it impossible to get an overall picture of the cost of public sector plans which can be relied on with any degree of assurance. The chief reason for this is timing: each plan may have a plan year other than the calendar year; and various plans may be on different cycles for triennial actuarial valuation reports. Table 4 below illustrates how difficult it would be to make any reliable comparisons or obtain any reliable total cost figures in these circumstances.

Timing of Fiscal Periods and the Public Accounts

The public accounts for the province are prepared for a fiscal year ending March 31. Many pension plans have a December 31 year end. Consequently, the pension costs reflected in the public accounts will not necessarily coincide with those in the pension plan statements. The degree of complexity may be illustrated in attempting to ascertain precise costs for the TSF. We have already noted how the elements of cost are scattered throughout the public accounts. In addition, the various cost elements are likely to be stated for different periods.

The Teachers' Superannuation Act provides:

> 22.(1) Annually and at the same time as the total legislative grant is payable to the board or other authority, the Treasurer shall place to the credit of the Fund a sum equal to the contributions made by or on behalf of the persons to whom this Act or the regulations apply.
>
> 23. All sums placed to the credit of the Fund during a fiscal year under section 22 shall be deemed to have been credited as of the 1st day of June in the preceding fiscal year, and the Treasurer shall pay interest thereon for the period between that day and the last day of the fiscal year in which the sums were actually received.

Thus the government's matching contributions are made under section 22 at December 31 of the year <u>following</u> the year in which employees' contributions have been made; but by virtue of section 23 the government payments are <u>deemed</u> to have been made at June 1 of the year in which the employees' contributions were made. Because of the actual postponement in payment there is also an interest payment for 19 months at the time the government's contribution is actually paid. This interest is at the rate of 6 per cent and not at the rate for the non-marketable debentures. Because of these fiscal arrangements the true asset position of the plan at the date for the actuarial valuation report is unlikely to be disclosed.

Further, since the TSF operates on a calendar year basis and the government payments to the TSF are made on that basis, though reported on a fiscal year basis in the Public Accounts, the expression of total expenditures by the government on the TSF as a percentage of members' pensionable earnings in a fiscal year would also be distorted if these percentages were compared with percentages for other plans.

It is clear that a number of difficulties have arisen with the increasing complexity of government accounting; but some changes are absolutely necessary if there is to be any hope of identifying the cost of pension plans in the public sector.

Cost of Supplemental Liabilities

Supplemental liabilities, which include both experience deficiencies and initial unfunded liabilities, can arise for several reasons. In considering their cost and how the cost may be controlled, it is important to identify the cause of such supplemental liabilities. They can arise in two general ways: first, from actuarial losses - that is, differences between plan experience and the actuary's forecasts; and second, from changes in the terms and conditions of the plan.

Actuarial Losses

Where actuarial forecasts are not borne out by actual experience, the difference may be caused by changes in the funding method, changes in the actuarial assumptions, or variance of actual experience from the assumptions made and the projections based on them. The Commission urges a more stringent control of the actuarial element, both by requiring more frequent actuarial valuations with contemporaneous adjustment of the contributions required to fund any supplemental liabilities, and a move toward more realism in those assumptions where practicable. These controls are discussed in the section on cost control. Some supplemental liabilities from the actuarial element are inevitable, but they can also be limited.

The TSF experience is a good illustration of the difficulty of accurate forecasting. The unfunded actuarial liability of the TSF between the actuarial valuations for the periods ending December 31, 1972 and December 31, 1975 increased by $800 million. The bulk of this increase arose from the unexpected size of salary increases during the three-year period. Annual actuarial valuations would have revealed the effect of the salary increases and allowed adjustment in estimates for both current service and special payments. Even though the matching contribution principle would have prevented any adjustment in the payments there would have been awareness of the problem much sooner and, one would hope, corrective action.

Plan Improvements

When a plan is amended so as to improve past service benefits (benefits relating to any service of employees before the date of the amendment), an initial unfunded liability is created. The cost of any improvement for both past and future service is calculated by the actuary and special payments set up for amortizing the unfunded liability over not more than 15 years. Accountants accept the special payment as the annual cost of the benefit; the Commission is prepared to accept this as the true cost of the benefit provided the actuarial estimate has been done with sufficient conservatism. Problems have arisen in the costing of early retirement provisions and indexing. These problems stem from incorrect forecasts of utilization rates in the cost of early retirement, and inflation rates in the cost of indexing. Costing must be done with great care to ensure that those who will receive the benefit will be responsible for a fair share of its cost, both through the employee's own contributions and through the employer contributions attributable to that employee, which in turn are reflected in cost as a percentage of payroll.

Early retirement privileges without actuarial reduction provide an example of how costs may be obscured. These provisions are usually referred to as "early retirement" but in some plans they are part of the retirement age structure and in that sense are not early. The PSSF allows normal retirement before age 65: at age 60 with 20 years' service or when age and service total 90. We have retained the use of "early" for these provisions in the discussion that follows.

Such provisions create a very significant retirement subsidy and a substantial but well-concealed "bridge" benefit. This is so because pension plans providing benefits based on final average earnings generally expect to gain some relief from the "strain" of financing early retirement because the actual pension is based on current earnings as opposed to projected earnings. This is a consequence of the funding mechanism and tends to conceal the "true" cost of early retirement.

For example, suppose a member may expect to have average earnings of $15,000 between ages 55 and 60 and $19,000 between 60 and 65. At age 60 the plan will hold an actuarial reserve based on a projected salary of $19,000 and service to age 60. If the member retires at age 60, the conversion to an immediate pension based on $15,000 imposes less financial strain on the fund than would be the case if the original actuarial reserve at age 60 for the deferred pension was only based on $15,000. Moreover the member retiring at age 60 has five years less service than if he stayed to age 65, unless the 35-year maximum on credited service applies.

Early retirement therefore affects the pension cost in the following ways:

- the pension is based on a lower salary average;

- the years of credited service are reduced;

- the pension is paid for a longer period;

- the interest earnings are reduced because the pension commences earlier;

- the contribution income is reduced.

Although the pension amount is lower on early retirement, the cost to the employer is greater. In addition, public service pensions are indexed for inflation (to a maximum of 8 per cent per annum). This greatly adds to the value of the early retirement pension, makes early retirement much more attractive to employees, and magnifies the employer's cost.

In addition, integration with the CPP benefit does not come into effect until the employee reaches age 65. Therefore the early retirement pension consists of a pension for life plus a temporary annuity to age 65, that is a "bridge" benefit equal to the CPP benefit at age 65.

Even a member who does not qualify for an unreduced pension receives a subsidy on early retirement. This may be illustrated by an examination of the 5 per cent annual reduction available to employees who retire after age 55 but who do not satisfy the 60 and 20 requirement or the rule of 90. The reduction is sometimes described as a "penalty," but in fact it represents a major benefit.

Let us compare the early retirement pension with the value of a pension commencing at age 65.

Table 1
Early Retirement Pensions, Value at Various Ages of Commencement with and without Subsidy

(1) Age	(2) No subsidy i.e., market value equivalent	(3) Subsidized early retirement (5% p.a.)	(4) Ratio of (3):(2)
	(Per cent)	(Per cent)	(Per cent)
65	100.00	100.00	100
62	76.49	85.00	111
60	64.28	75.00	117
55	42.24	50.00	118

Column (2) in Table 1 was determined using the GA-1971 Mortality Table and 7.25 per cent interest, assuming no indexing and a pre-retirement death benefit at the actuarial equivalent of the benefits involved.

If the early retirement pension were unreduced, we would merely substitute 100 per cent for all figures in column 3. This calculation would demonstrate the large subsidy involved in unreduced early retirement at younger ages.

Thus we see that the true cost must be very carefully assessed, and that costing of proposed benefits before they are introduced to reveal the full cost is essential. Otherwise the true cost will only reveal itself later in the increased size of supplemental liabilities.

Distortion of costs for the situations mentioned above may be present from time to time in any or all of the defined benefit plans in the public sector. Before considering recommendations for cost control which will entail removing some of the distortion and keeping in mind the tentativeness of the figures, we address the magnitude of costs in the major public sector plans.

MAGNITUDE OF COSTS AND LIABILITIES

Some consideration of the present cost figures for public sector plans will illustrate the enormous size of some of the plans, their annual cost and their unfunded actuarial liabilities which still are to be paid for in the future. For the purposes of this discussion we concentrate on PSSF, TSF, OMERS, HOOPP, Hydro, and Workmen's Compensation Board (WCB).

To deal with assets, actuarial liabilities, and unfunded actuarial liabilities, Table 2 was prepared from the actuarial reports for these plans for the period from 1969 to the latest ones filed with the Pension Commission of Ontario as of the fall of 1980. The most recent report studied was that of Hydro for the period ending December 31, 1979. However, the actuarial valuations using the level premium, entry age normal method of funding (PSSF, TSF and WCB) included the present value of future contributions from employers and employees in the total value of the assets. Table 3 was therefore prepared to eliminate these future contributions from both the asset and actuarial liability figures for these plans so that we could deal with more tangible values.

(In preparing Table 3, it was also recognized that some of the assets are valued at more than their present market value - with a correspondingly higher figure for actuarial liability - because of the practice of capitalizing interest which is in excess of that based on the actuarially assumed rate. (See Volume II, Chapter 9). It was not felt necessary to adjust for this difference for the purposes of

Table 3; but it should be noted that in the TSF, for example, such an adjustment would result in figures at December 31, 1978 of $3.2 billion for assets and $4.3 billion for the actuarial liability).

The information in Table 3 may be analyzed in several ways. First, there is the picture in absolute dollars. We see, for example, that in less than ten years the TSF assets had grown from $727 million to $4.5 billion. The total combined assets of these six plans for various periods, with the latest being December 31, 1979, was nearly $9 billion.

Secondly, one can apply these total assets against a total actuarial liability of $10.6 billion and arrive at a total unfunded actuarial liability of close to $1.7 billion. The unfunded actuarial liability amounted to 16 per cent of total actuarial liability; that is, the overall proportion funded was 84 per cent. Totals, however, in this respect are misleading, and one must examine the figures for the various plans to assess how well they were funded.

More significant is the change in the funded position over the period. For example, the PSSF had an unfunded actuarial liability which was 21.8 per cent of actuarial liability at December 31, 1970. By December 31, 1976 it had risen to 32.1 per cent, indicating that the funded position of the plan had deteriorated. At the other extreme, Hydro had an unfunded actuarial liability at December 31, 1970 of $31.9 million, or 8.9 per cent of the actuarial liability, but by December 31, 1979 it had a surplus of $80.8 million, or 6.7 per cent of the actuarial liability.

Since 1976 other costs and liabilities have been building as a result of indexing of the PSSF and the TSF plans. These costs are not reflected in the unfunded actuarial liabilities shown in Tables 2 and 3.

Of particular interest in the quest for cost control is the latter part of the table which ages the information available. Obviously there is no uniform period on which the plans may be compared properly, and no basis for obtaining an overall picture of the cost position of the plans either in absolute dollars or in growth trends.

The plans may also be assessed by considering the cost to the employer as a percentage of payroll. Results of this method are also subject to reservations as to accuracy. However an assessment was undertaken and the results appear in the public sector study data (Volume VII, Tables 8.1 to 8.5). These tables show public sector employer payments as a percentage of pensionable payroll over a period from 1971 to 1977. The costs reflect all the costs, as in our example for the TSF, except administrative expenses.

Table 2
Six Public Sector Pension Plans in Ontario, Assets, Actuarial Liabilities, Unfunded Actuarial Liabilities

	Valuation date	Actuarial funding method	Assets	Actuarial liability	Unfunded actuarial liability or (surplus): Amount	Unfunded actuarial liability or (surplus): Per cent of actuarial liability	Years elapsed from pre-1971 to latest valuation	Years elapsed since latest valuation
					(Thousands of dollars)			
Last Actuarial Valuation Pre-1971								
PSSF	Dec. 31, 1970	Level premium entry age normal	861,044	978,285	117,241	12.0		
TSF	Dec. 31, 1969	"	1,758,763	2,141,028	382,265	17.8		
OMERS	Dec. 31, 1970	Accrued benefit unprojected	204,423	181,166	(23,257)	(12.8)		
HOOPP	Dec. 31, 1970	Accrued benefit projected	135,772	149,103	13,331	8.9		
Hydro	Dec. 31, 1970	"	336,842	368,750	31,908	8.6		
WCB	Jan. 1, 1971	Level premium entry age normal	50,772	49,339	(1,433)	(2.9)		
Net combined			3,347,616	3,867,671	520,055	13.4		

(continued...)

Table 2 (continued)
Six Public Sector Pension Plans in Ontario, Assets, Actuarial Liabilities, Unfunded Actuarial Liabilities

	Valuation date	Actuarial funding method	Assets	Actuarial liability	Unfunded actuarial liability or (surplus)		Years elapsed from pre-1971 to latest valuation	Years elapsed since latest valuation
					Amount	Per cent of actuarial liability		
			(Thousands of dollars)					
Latest Actuarial Valuation Filed with the Pension Commission of Ontario as of Fall of 1980								
PSSF	Dec. 31, 1976	Level premium entry age normal	2,112,406	2,617,761	505,355	19.3	6	3
TSF	Dec. 31, 1978	"	9,006,181	10,102,278	1,096,097	10.8	9	1
OMERS	Jan. 1, 1978	Accrued benefit projected	1,205,495	1,320,658	115,163	8.7	7	2
HOOPP	Dec. 31, 1978	"	757,518	831,389	73,871	8.9	8	1
Hydro	Dec. 31, 1979	"	1,289,787	1,209,023	(80,764)	(6.7)	9	-
WCB	Dec. 31, 1977	Level premium entry age normal	111,656	98,632	(13,024)	(13.2)	7	2
Net combined			14,483,043	16,179,741	1,696,698	10.5		

Source Royal Commission on the Status of Pensions in Ontario.

Table 3
Restated Assets, Actuarial Liabilities, Unfunded Actuarial Liabilities of Six Public Sector Pension Plans in Ontario

	Valuation date	Actuarial funding method	Assets	Actuarial liability	Unfunded actuarial liability or (surplus): Amount	Unfunded actuarial liability or (surplus): Per cent of actuarial liability	Years elapsed from pre-1971 to latest valuation	Years elapsed since latest valuation
			(Thousands of dollars)					
Last Actuarial Valuation Pre-1971								
PSSF	Dec. 31, 1970	Level premium entry age normal	421,266(a)	538,507(a)	117,241	21.8		
TSF	Dec. 31, 1969	"	727,079(a)	1,109,344(a)	382,265	34.5		
OMERS	Dec. 31, 1970	Accrued benefit unprojected	204,423	181,166	(23,257)	(12.8)		
HOOPP	Dec. 31, 1970	Accrued benefit projected	135,772	149,103	13,331	8.9		
Hydro	Dec. 31, 1970	"	336,842	368,750	31,908	8.6		
WCB	Jan. 1, 1971	Level premium entry age normal	32,900(a)	31,467(a)	(1,433)	(4.6)		
Net combined			1,858,282	2,378,337	520,055	21.9		

(continued...)

a Adjusted by eliminating the present value of future contributions by employer and employees.

Table 3 (continued)
Restated Assets, Actuarial Liabilities, Unfunded Actuarial Liabilities of Six Public Sector Pension Plans in Ontario

	Valuation date	Actuarial funding method	Assets	Actuarial liability	Unfunded actuarial liability or (surplus): Amount	Unfunded actuarial liability or (surplus): Per cent of actuarial liability	Years elapsed from pre-1971 to latest valuation	Years elapsed since latest valuation
			(Thousands of dollars)					
Latest Actuarial Valuation Filed with the Pension Commission of Ontario as of Fall of 1980								
PSSF	Dec. 31, 1976	Level premium entry age normal	1,070,166(a)	1,575,521(a)	505,355	32.1	6	3
TSF	Dec. 31, 1978	"	4,536,531(a)	5,632,628(a)	1,096,097	19.4	9	1
OMERS	Jan. 1, 1978	Accrued benefit unprojected	1,205,495	1,320,658	115,163	8.7	7	2
HOOPP	Dec. 31, 1978	Accrued benefit projected	757,518	831,389	73,871	8.9	8	1
Hydro	Dec. 31, 1979	"	1,289,787	1,209,023	(80,764)	(6.7)	9	-
WCB	Dec. 31, 1977	Level premium entry age normal	73,520(a)	60,496(a)	(13,024)	(21.5)	7	2
Net combined			8,933,017	10,629,715	1,696,698	16.0		

a Adjusted by eliminating the present value of future contributions by employer and employees.

Source Royal Commission on the Status of Pensions in Ontario.

In 1977 pension payments made by government as the employer's share of cost ranged from .5 per cent of payroll in the Ontario Milk Marketing Plan to a high of 26.48 per cent for the City of Toronto Civic Employees. The Ontario Hydro Pension Plan cost was 15.48 per cent, Teachers' Superannuation (TSF) 13.75 per cent, and Public Service Superannuation (PSSF) 9.94 per cent of payroll for the same year. However when we consider the effect of the funding method chosen we realize that the percentages themselves, for comparative purposes among plans are not very useful for those plans using an accrued benefit method since a determining factor is the point of progress through the funding period. For level premium funding, theoretically, the percentage will be constant and could be more informative for actual pension costs. Both methods, however, are affected in reality by the size of experience deficiencies and other supplemental liabilities which are being paid off over different periods, thus obscuring the direct effect of method on cost for the actual plans.

The percentages in general do show a general rise from those in 1971 to those in 1977. The reasons for the changes could be several, with one or more applicable to each plan. These could be: a change in funding method; a change in actuarial assumptions; improvements in benefit structure or plan features; or changes in amounts or timing of payments to reduce unfunded liabilities.

What is important is that there is a distinct and marked trend towards increased cost as a percentage of payroll and increased unfunded actuarial liabilities. Our investigations have convinced us that not enough control is being exerted over these costs and that it is imperative that an improved cost control system be adopted now.

COMPARISON WITH THE PRIVATE SECTOR

The Commission was specifically charged to study the interrelationship between private sector plans and public employee pension plans. In his statement to the Legislature on establishing this Commission, the Premier referred to the conspicuous fully-indexed benefits of public employee pension plans. This feature like no other has reinforced the public's impression of a privileged position for public sector employees vis-à-vis other employees. The public has been vocal on this divisive issue, and submissions to the Commission raised this matter and drew comparisons with the private sector.

Dominion Foundries and Steel Limited, Brief 129:

> "When Ottawa or any other level of government pays a wage rate or offers a benefit which is significantly greater than what is considered the norm in the private sector, the labour force in the private sector will quite correctly strive to obtain that higher wage level or better benefit. Problems arise when the private

sector cannot afford to follow the lead of government....The question really becomes not whether government can afford to fund the indexing of pensions for its work force, but becomes a question of whether the private sector can."

Mr. Robert E. Costello, Brief 37:

"I am 100 per cent against the indexed pensions now being paid to Federal Government MPs and civil service. They are not fully funded and place a burden on the taxpayer who quite often has little or no pension benefits....Industry pension plans cannot compete with those offered by Federal or Ontario governments and I see no reason why the governments should lead in this area - they tend to lag in other areas, i.e., productivity, efficiency, control of spending, etc."

United Church of Canada, Brief 206:

"...we believe that a common basis could be found in the proposition that no one sector of employees seeks, nor should be granted, an advantage not available to another sector. Further, since it has been generally agreed that fiscal policy is one of the factors influencing the rate of inflation it should be questioned whether it is desirable in principle to insulate those policy makers from the possible adverse consequences of their decisions." (p.21)

Southam Press Limited, Brief 251:

"A point of concern to us at this time is the disparity between benefits under our final-average plan and those of many public service plans, including their indexing. It disturbs our employees. And it disturbs management for two reasons.

"The first is the impracticality of our being able to follow suit. Our final-average plan is reasonable and we would like to be able to upgrade gradually, but not to what appears an unnecessary level.

"The second reason concerns that level. We cannot see the rationale for public service pensions that provide for full-service individuals at age 65 a post-retirement net income, indexed, that is over 91 per cent of pre-retirement net income at the $10,000 per year gross pay level, and not less than 80 per cent of pre-retirement net income for gross levels up to $35,000 per year. This arises as a result of the cessation of retirement plan, CPP/QPP and UIC contributions coupled with CPP/QPP and OAS payments plus tax benefits for those aged 65 and over." (pp. 1-2)

Ontario Hydro, Brief 299:

> "The environment in which business and industry are forced to operate is quite different from government in that private sector enterprises are expected to cover all costs, including actuarially determined pension liabilities. However, it is the private sector in which productivity gains have to be made.
>
> "Employees in private organizations want pensions equivalent to those already made available to many public servants. Consequently, incompatibility between government and private sector pensions generates tensions.
>
> "It is therefore recommended that...pension plans for government employees be reasonably comparable with private plans." (pp. 1-2)

Algoma Steel, Brief 218:

> "Governments, as an employer, must be responsible employers. They must also respect the rules which apply to the private sector in their dealings with their employees. As an employer, government should not set standards beyond those which are reasonable." (p.28)

The Commission believes that government must take notice of these strong public statements concerning differences between public and private employee benefits, especially in the pension area. The general evidence supports the contention that public sector employees are better off in terms of pension benefits than are private sector employees. Coverage is higher in the public sector - 94.8 per cent compared with 39.1 per cent. Plan benefits are generally higher in the public sector. Almost 96 per cent of plan members in the public sector are in a final earnings plan compared with 31 per cent in the private sector. About 83 per cent have survivor benefits compared with 21 per cent in the private sector and 81 per cent have a full accrued disability benefit in the plan compared with 28 per cent of private sector members. Almost no members in the private sector have automatic adjustment for inflation (95.2 per cent) while almost 60 per cent of members in the public sector have some automatic protection. A good measure of portability exists within the public sector through reciprocal transfer agreements, which are virtually non-existent in the private sector. Public sector plans permit a wide variety of relief from the continuous service requirement. Past service options which take into account military service are widespread. Contributions may be made while receiving Workmen's Compensation benefits.

The cost of pensions is inevitably affected by their generosity. It is cost which must be the limiting factor in assessing public sector benefits. In the Commission's opinion, the taxpayer must not be obliged to shoulder the cost of pension benefits for public sector employees

at a level they cannot hope to gain for themselves because of cost limitations in the private sector.

The Commission therefore recommends that:

The Government of Ontario seek to achieve parity with the private sector in total compensation of its employees, and in particular should not provide pension benefits more generous than those generally available in the private sector, measured by the full and true cost of such benefits. The government should not lead the way for the private sector, particularly in the areas of inflation adjustment and early retirement without actuarial reduction.

Does the Public Sector in Fact Lead?

We have made the point that government is not subject to the same cost constraints as the employer in the private sector who must make a profit to survive and who must constantly seek to control costs. Government has other factors which force it to control costs but these are less immediate. It also is in a different position from the private employer when it sits down at the bargaining table to settle employee benefit structures.

For many years, the conventional wisdom was that public servants, although lower paid than workers in the private sector, had better pension benefits to compensate. The general comparative evidence given for the availability of desirable benefits raises doubt about the continuing validity of that assumption. The difficulty of assessing whether or not public and private sectors in fact have a rough parity in employment benefits is that of establishing a measure for comparison. The problem arises not only between the public and private sectors but within each of the sectors themselves. For example, would one seek to compare a private sector plan with the PSSF or with the WCB or the Queen's University plan? Would one compare a public sector plan with the plan of Shell Oil, Algoma Steel, Eaton's, or that of an employer of 50 people? If one decides to compare the PSSF and Algoma Steel, then what constitutes total compensation for purposes of comparability - salaries, pensions, group insurance, sick leave benefits, subsidized lunches, working hours, etc.?

This Commission was in no position to begin to assess total compensation. Even looking at pensions alone, comparisons are exceedingly difficult. At least three approaches are possible. The first is to compare benefits paid out at any point in time to employees with the same salary, agé, and service characteristics on the basis of the employer's cost of providing such benefits. A survey was undertaken several years ago comparing PSSF pensions with those of twelve large employers in the private sector. Benefits were compared on the basis of the basic pension each employee would have received from the employer's contribution for service with the PSSF and with each of the companies

compared. Costs as a percentage of payroll were also compared. In the result, the PSSF ranked in the top one-third of the companies surveyed for basic pension benefits, pension costs as a percentage of payroll, inflation adjustments, and survivor benefits. PSSF was at or near the top for early retirement benefits. Fifty per cent of the private companies also had savings plans with employer contributions, while the the Government of Ontario had no such arrangements for its employees.

The PSSF total pension cost as a percentage of payroll was shown as 13 per cent. Two of the private plans had percentages slightly in excess of this, but in only one did the employee's cost as a percentage of payroll exceed that of the PSSF. While the comparison indicates that the PSSF is in the top range of large employers in pension benefits, the comparison is not conclusive.

A second approach is to value the pension benefit on the basis of what it would cost the government as employer to provide a benefit similar to that provided in the private sector. This approach is referred to as the "level of compensation method" in the Tomenson-Alexander report on the Federal Public Service pension plan.

> "Under this method one assumes the characteristics of the Federal Public Service - such as age, sex, years of service and turnover experience - and determines the total value of that benefit program if it were adopted by the Federal Public Service. From this total value would be deducted the employee contributions in order to determine the net value of the plan to the employees."(5)

It is argued that this approach is to be preferred over the first one because the employer's cost as a percentage of payroll in the former approach reflects the funding pattern, partly in the method of funding and partly in the time for amortization of unfunded liabilities. Variations in contribution rates would invalidate the comparison of values with those in the private sector.

A third approach is an overall assessment of the features included in a plan from a "cost rating" viewpoint. Does a plan include features which are known to be costly? Features which are expensive will not commonly appear in most plans. One need only look at the various tables in Pension Plans in Canada 1978 (Statistics Canada) to observe that most plans will not include some or all of: a final average formula; indexation, full or partial; early retirement without actuarial reduction; survivor benefits; reciprocal transfer rights.

However, if we then examine the five major public sector plans and the WCB plan we find:

- all have a final or best average formula;

- OMERS and HOOPP do not provide some indexing of benefits after retirement; Hydro has ad hoc adjustments on a regular basis;

- only OMERS does not have unreduced early retirement, except in supplementary plans;

- all provide for a 50 per cent widow's pension on death after retirement

- all have some reciprocal transfer rights.

From the foregoing it appears that these public sector plans are above average in providing desirable plan features. It can therefore be argued that these plans must be more costly than average plans in the private sector. While this approach is useful, it must also be remembered that employee contributions may also be higher than average; the employees argue that they are in fact paying for the desirable benefits.

PSSF and TSF members pay 7 per cent of salary (6 per cent plus 1 per cent for indexing); OMERS, 7 per cent; HOOPP and WCB, 6 per cent; Hydro, 5 per cent (all with some type of CPP integration in the contribution formula).

The question therefore is whether the additional contribution above what is considered average is sufficient in relation to the above-average cost. We have already noted that the 1 per cent contribution to SABA is not sufficient to fund the indexing of retirement benefits for the PSSF and the TSF.

Comparisons by per cent of payroll costs with the private sector may also be helpful in considering the plan feature cost rating. The Financial Executive Institute Canada Report on Survey of Pension Plans in Canada, March 1980, reveals an average employee contribution rate of 4.2 per cent of salary. The cost to the employers in the sample is shown in the following table taken from the report:

Table 4
Total Annual Pension Costs to Selected Employers Including Past Service Cost and Experience Deficiency Write-Off as Percentage of Salary and Wages, Canada

	Fiscal years							
	Estimated current		Actual latest		Actual previous		Actual 1974	
		(%)		(%)		(%)		(%)
Under 5%	32	16.7	41	18.9	44	20.3	44	25.2
5% to 7.4%	52	27.2	52	24.2	51	23.6	50	28.5
7.5% to 9.9%	52	27.2	58	27.0	59	27.4	36	20.6
Over 10%	55	28.9	64	29.9	62	28.7	45	25.7
	191	100.0	215	100.0	216	100.0	175	100.0
Not given	57		33		32		73	
Total	248		248		248		248	
Average cost	9.4%		9.9%		9.4%		8.1%	

Source FEI Canada, Report on Survey of Pension Plans in Canada, March 1980, Table 10.

The FEI study canvassed 205 corporations with total net capital of $227.8 billion, sponsoring 248 pension plans. These represent larger employers so that averages are for this group and are not diluted by costs for small employers.

Again recognizing the problems of direct comparability, we refer to the public sector study data on employer's cost as a percentage of payroll for public sector plans (see Tables 8.1-8.10 of the study in Volume VII). FEI data are for the fiscal year 1978; the public sector study data are for 1977.

Table 5
Employer's Payments into Pension Plan as a Percentage of Pension Payroll, 1977 - Six Plans, Ontario Public Sector

	Per cent
PSSF	9.94(a)
TSF	13.75(a)
OMERS	(b)
HOOPP	7.69
Hydro	15.48
WCB	9.05

a Includes 1 per cent contribution under SABA.
b Not available for 1977.

If we then add the average employee's contribution to the FEI results and the actual employee's contribution to the public sector plans we find total cost percentages as follows:

Table 6
Total Payments into Pension Plan as a Percentage of Pensionable Payroll - Six Plans, Ontario Public Sector and FEI Study Average

	Per cent
PSSF (1977)	16.94
TSF (1977)	20.75
HOOPP (1977)	13.69
Hydro (1977)	20.48
WCB (1977)	15.05
FEI (1978)	14.1

Despite the difficulties in comparing the data, the Commission finds from this cost rating a clear inference that the public sector is providing better benefits than many private sector plans of larger employers and is also paying a higher percentage of payroll to provide pension benefits.

Whether the government is leading the private sector in total compensation is beyond the competence of this Commission to assess, but for pension cost alone the Commission finds the demonstrated difference disturbing. The Commission is of the opinion that more effective cost assessment and control is needed for public sector plans.

EFFECTIVE COST CONTROL

The public sector has 127 pension plans, almost none of which comes under direct government control. Interposed between the government and employees are employers such as school boards, municipalities, and hospitals. Each of these employers may come under a particular ministry of the government or may be a Crown corporation or agency such as Hydro. Pensions form only one part of an employment benefits package which has to be settled with the employees, whether informally or through formal bargaining with a union. To bring some consistency and order into the current situation and so permit cost control is a major problem for the public sector.

It was suggested to the Commission that there be some attempt to standardize pension benefits for all public sector employees by combining all pension provisions into a single plan which could be operated by one pension board or ministry. The Commission rejected such a possibility on the ground that the disruption created would be impos-

sible to cope with on a defined benefit basis without many arbitrary decisions which would have to be forced on employees. The various pension plans have grown and adapted to the particular work-forces which they serve, and this should continue until some better method can be instituted for assessing pension comparability.

The financing structures of the various employers are also very diverse, reflecting the policies of different ministries within the government. A consistent policy might be achieved by putting all pension benefits under a pension board or ministry; but the Commission also rejects this approach because pensions are only one element of employees' compensation and should not be administered separately from the other elements.

In the Commission's opinion, diversity in pension benefits in the 127 plans should be permitted to continue, but steps must be taken to isolate and control the cost of the plans. The present government structure requires cost control through approval of the estimates of government ministries and agencies by the Legislature, and of bodies at the municipal level by the taxpayers. The weakness in cost control is that pension costs are not always identified and are not always stated as a total cost.

We have seen how the total cost of a plan can be obscured by the matching contribution principle, by failure to isolate the complete cost of all benefits and by failure to attribute all elements of pension cost to the particular employer.

The practices of the six plans we have used in previous examples indicate the difficulties in isolating and charging pension costs in a way that lends itself to control.

For the PSSF, compensation costs (salaries, pensions, and other benefits) are charged directly to the appropriate ministry or agency of government. The charge for pensions includes current contributions as well as payments toward deficiencies. (Previously deficiencies were paid centrally and charged to the Ministry of Government Services).

For the TSF, contributions by the government to the pension fund are charged to the Ministry of Education. While these amounts are looked upon by the Ministry of Education as part of the total spending by government on education (within the terms of the "Edmonton Agreement"), there is no specific or direct charge to school boards. Except for some separate school boards, the local boards have no knowledge of or responsibility for their share of the cost of the teachers' pension plan. Even where these separate school boards have pension charges, the charge is for current contributions only and not for special payments to amortize deficiencies. The Commission favours steps that recognize these pension costs as part of the specific amounts charged to individual school boards.

For OMERS, the cost of the basic plan is determined by the OMERS board and a set percentage of payroll is charged to each member municipality. These pension costs then are borne by the individual municipalities directly and they appear as expenditures which must be financed out of provincial grants and municipal tax levies. Pension costs are not a specific item in municipal grants from the provincial government; they are covered by the unconditional grants. Three or four supplemental programs for municipal workers are also administered by OMERS. These are at the option of the individual municipality, and the employer's share of the cost is borne entirely by the municipality. For these plans OMERS develops individual operational experience and costs for individual municipalities so that each municipality in fact pays its own cost.

For HOOPP, costs are fixed and charged to member hospitals in much the same way as OMERS. Pension costs are part of the hospital budgets submitted to the Ministry of Health.

For Hydro, pension costs are charged directly to the corporation's own accounts, and therefore are to be recovered out of utility rates charged to the public.

For the WCB, pension costs are charged directly in its own accounts. These costs then affect the rates charged to employers for Workmen's Compensation coverage.

Cost Control Responsibility

In considering the variety in methods of charging pension costs, the Commission concluded that a number of steps should be taken to ensure effective cost control. These involve three areas on which the Commission has developed recommendations. These areas are:

1. Determination of total cost of pension;

2. Disclosure of total cost;

3. Assessment of total cost.

There must, however, be one body responsible for applying the instruments of cost control. In the Commission's opinion, this jurisdiction should be assumed directly by Management Board of Cabinet, as the agency which has the closest responsibility for controlling government spending in its broadest sense. Unless control is exercised at this level, pension plan costs can quickly get out of hand in the total cost context. (The TSF offers a sobering example of how cost impact can be lost through divided responsibility. While local school boards have the responsibility to negotiate and pay teachers' salaries, pension costs - which are affected directly by increased salaries - are paid for by the Ministry of Education, which has no control over

salaries). Management Board is in the best position to assume overall control of pension costs.

Management Board should be assisted in its responsibility by the Treasury which has the expertise to make independent cost determinations to ensure that the true cost picture is available. The Commission therefore recommends:

1. That responsibility for cost control of all public sector pension plans be placed with Management Board of Cabinet, with power to scrutinize the operation of each plan and to control the cost and obligations of each plan through budgetary control of the plan sponsor.

2. To assist Management Board in its responsibility, Treasury assume four independent responsibilities relating to public sector pension plans:

   (i) to set the inflation factor for use in determining salary scales and interest rates as required for actuarial valuations of public sector plans;

   (ii) to scrutinize and evaluate from a true and total cost perspective the actual operating experience of each public sector pension plan and to report its findings to Management Board;

   (iii) to evaluate the true and total cost of proposals for change in each plan and determine the contribution rates for both employees and employer to pay the full cost of such changes, (all proposals to be submitted through Management Board to Treasury for costing before any such change is made), and to report its findings to Management Board; such findings shall also be available to the public upon request;

   (iv) to report periodically to the public on the operation of public sector pension plans and in particular the cost of the plans in dollars and as a percentage of payroll and the cost-sharing between employer and employee; such report to be made annually for the PSSF, TSF, Hydro, HOOPP, OMERS, and WCB, and at least every six years for all other public sector pension plans.

<u>Fixing the Inflation Assumption</u>

Variance in the inflation factor used for setting interest rate and salary scale assumptions in the past has been commented on in Chapter 3. The need for some consistency throughout the public sector plan valuations is patent. In the Commission's opinion, the Treasurer is in

the best position to set the inflation factor annually so that the same factor will be utilized by all the plan actuaries. It should be stressed that the Commission is not recommending a fixed interest rate or salary scale. These will vary with the judgment of the actuary for the circumstances of each plan.

Determination of Total Cost

By the Commission's recommendation, the Treasury is to determine the true cost of each pension plan and to report this cost to Management Board. As mentioned in Chapter 3, Management Board had developed guidelines for assessing public sector pension plans as early as 1976. The Commission commends this approach. Similar guidelines should be developed immediately to apply to all public sector plans to assist the Treasury in establishing a true cost for each plan with some degree of consistency among the plans for comparability purposes. The timing of the reports under the guidelines should also be correlated to permit a complete picture at a single given time. The guidelines should also incorporate the various recommendations of the Commission affecting the funding of the plans such as abolition of the matching contribution principle, a narrowing of the choice of funding method, and control over actuarial assumptions. (For a critique of existing Management Board guidelines, see Keith Cooper's report in Volume VII).

The Commission recommends that guidelines similar to those developed by Management Board in 1976 for the five largest public sector plans and the WCB be developed by Treasury in carrying out its recommended responsibilities of scrutinizing and evaluating the operation of all public sector plans for cost control purposes, to encourage the proper funding of plans and to discourage over or under-funding.

The Management Board guidelines of 1976 are reproduced as an appendix to Keith Cooper's report in Volume VII. In the development of new guidelines the approach should be to require specific information prepared on a specific basis. For example, all actuarial evaluations for final pay plans should report on the basis of two funding methods: accrued benefit projected and entry age normal. (Where a plan is currently using neither of these methods the first comparative valuation could be on the current method and the method to be adopted). Contribution rates should be developed for each of the funding methods and the contribution rate to be adopted suggested by Treasury to Management Board for comparison with the contribution rate recommended by the plan actuary. Valuations should be in accordance with the general requirements of the Pension Benefits Act.

All pension plans in the public sector having assets of $150 million or more should file an actuarial valuation annually with the Pension Commission of Ontario within nine months of the fiscal year end of the plan. This means that contribution rates will be set annually, to avoid a build-up of undetected experience deficiencies and allow

timely steps to correct any shortfalls or overpayments. The added cost of annual valuations is minimal in relation to the saving which will flow from early identification of problems. The Commission has recommended that the large public sector plans be given nine months to file the actuarial valuation report instead of six months as recommended for all other public and private sector plans. This recognizes the magnitude of the work involved for these plans; but if technically feasible it would be preferable to have a six-month time limit for all plans. All public sector pension plans should have the same fiscal year to co-ordinate the filing of actuarial valuations so that those plans reporting triennially will all report for the same period.

Once this conversion has taken place, the Treasury will be in a position to implement the Commission's following recommendation: that the Treasury in carrying out its recommended responsibility of scrutinizing and evaluating the operation of all public sector plans, review at least every six years the funding of all public sector pension plans through an examination of each plan on a basis consistent for all the plans to allow comparability of plan funding. The results of such examination should be used in assessing the future cost of all the plans through reporting to Management Board, and for reporting to the public.

Implementation of the Commission's other recommendations - abolition of the matching contribution principle, abolition of SABA, full funding of indexing promises, creation of funds for the PSSF and LARA, and the allocation of <u>all</u> costs to a plan - will assist the Treasury in ascertaining for Management Board the complete cost of the pension benefits being provided.

A very important aspect of the cost-determining role of the Treasury will be the costing of plan improvements <u>before they are instituted</u> and to the full extent of their cost. We have commented on problems which have arisen in the plans such as the TSF where plan improvements have created initial unfunded liabilities but the matching contribution principle has limited the funding of these improvements. Although this is not serious for the protection of plan members in terms of wind-up of the plan, it has very serious long-run cost ramifications for the plan. Early retirement without actuarial reduction is expensive and difficult to cost. However, careful utilization studies should be undertaken by Treasury, based on the demographic structure of the particular plan, in seeking to determine the long-run cost. Possible job-sharing by teachers is a case in point where one might anticipate the exercise of early retirement options more frequently than in the past. Such changes will be reflected in the cost, which should be reassessed annually and reflected in contribution rates.

Another area of cost to the government which is not readily recognized is that of reciprocal transfer agreements. The operation of these agreements is often very beneficial to the individual employee and very costly for the government as employer. The Commission believes

that the terms of reciprocal transfer agreements should be reviewed, and where necessary, altered to result in neither gain nor loss to the person making a transfer from one plan to the other, and that rights to additional benefits, such as improved benefits for past service with other plans, be deleted unless arrangements can be made for payment of the additional cost by the employee.

Disclosure and Assessment of Total Cost

Once the Treasury has determined the total cost of pension plans, it is essential that the information be utilized by disclosure to:

(i) Management Board

to enable it to see the total cost of pension benefits in the total compensation package; make cost commparisons with the private sector; and effect cost control through the budgets of the ministries, Crown agencies, and Crown corporations. Additional powers may be required for Management Board to effect control over Hydro, the TTC, and other plans where fiscal control is tenuous;

(ii) Employers and Employees

to enable employers to appreciate the full effect of pension costs when they consider benefit packages for their employees; and to enable employees to assess the value of the benefits they are promised in relation to the contributions required;

(iii) Taxpayers

to enable individuals to compare the cost of the benefits being received in the public sector in relation to the private sector, and to assess the burden the government as employer is undertaking and its effect on the fiscal future on the province.

It might be argued that such disclosure would not be meaningful to most taxpayers and that pensions, being only one cost of government, do not merit such extensive disclosure. The Commission rejects both these arguments. The Treasurer has a good record of presenting complex issues to the public in an understandable way in papers annexed to the Provincial Budget. The New York City experience has alerted taxpayers to the potential pitfalls in public sector pension plans, and therefore information would be welcomed. Pension promises are not just concerned with annual costs. They involve long-range promises which must be paid for by taxpayers, present and future. The shouldering of a fair portion of the burden by successive generations of taxpayers is a concern of all

taxpayers. Only by disclosure can an assessment of the cost division be made.

The six-year review will allow a close scrutiny of unfunded actuarial liabilities and surpluses in all plans with a view to identifying their causes and taking measures to control them.

Effect of Investment on Cost

The major public sector plans, as we have seen, are enormous. Each year the contributions from employees alone are in the millions of dollars. The investment of the funds as an essential element in cost control operates on two principles: the longer the monies are invested, the greater will be the assets created; the higher the rate of return on the monies the greater the assets created. The length of time for investment is a function of the funding method. Therefore, a continuation of funding for public sector plans and control over the funding method as recommended by the Commission are important elements in maximizing investment return. Another important element is the rate of return. The Commission's recommendations for achieving a market rate of return for all public sector plans will be productive in two ways. Rates of return will be set by the market, with accompanying fiscal restraints on the province when it must go to the market to borrow, and may be higher than those experienced in the TSF and PSSF under the present arrangements. More capital allocated through the capital markets should provide a sounder economic base for the province, which in turn should reduce the burden of the taxpayer.

The next section of this chapter deals with a view of how pension costs may develop in the future. It is a frightening prospect indeed if no measures for effective cost control are instituted without delay. Therefore the Commission recommends:

> That the Government of Ontario immediately adopt a policy of determining the full and true cost of all pension benefits provided to the employees of the Ontario public sector and to utilize such information for the following purposes:
>
> a) to recognize and control the cost of all such benefits for the full terms of their accrual;
>
> b) to allocate cost fairly between employer and employees;
>
> c) to provide information on such costs to both employers and employees, whether or not such pensions are subject to collective bargaining;
>
> d) to provide information on such costs to taxpayers.

The Commission believes that recognition of the true cost of pensions at the level of Management Board will enable it to control costs in the future. However, if this or some similar alternative is not feasible within the governmental structure, then the Commission recommends:

> If the necessary authority to control pension plan costs cannot be given to Management Board or cannot be successfully used by Management Board to control pension plan costs, that the Government of Ontario consider making changes in pension plan design to convert existing plans to defined contribution plans or some other design in which cost control is effective.

FUTURE PENSION COSTS FOR ONTARIO PUBLIC SECTOR EMPLOYEES

Having ascertained that total pension costs of public sector plans are not now readily available for cost control purposes, the Commission was interested to see if total costs for the future might underline the need for a move to effective cost control now.

The Commission retained Laurence E. Coward of William M. Mercer Limited to prepare a study of the future cost of public sector plans. This study is not a complete actuarial projection for these plans. Rather, it is a study based on one set of assumptions which seemed reasonable to the Commission, forecasting possible growth in the number of public sector employees in the next 25 years, using the Commission's "most probable" assumptions for fertility and economic conditions; and applying these projections to the major public sector plans. The choice of the various assumptions is discussed, but there is no attempt to defend these as the only plausible assumptions for the future. As Mr. Coward states in the report:

> "Our results are best regarded as an example of what would happen if our particular assumptions were borne out by experience, rather than an estimate."

It should be noted that the study takes the plans as they are now. Improvements in the benefit structure or other features would increase the cost. Continuing high inflation would mean that the indexing costs given would be understated.

Some highlights of the study and its conclusions should be noted. On the basis of the assumptions used in the study:

- the total number of public sector employees will more than double in the next 25 years;

- employees in the municipal and health sectors will experience greater growth rates than public servants, teachers, and Hydro employees;

- prices will increase to three times their present level and salaries by five times in the next 25 years;

- public sector employer pension costs, exclusive of CPP contributions but including indexing, will increase from an average of 13.7 per cent to 14.8 per cent of payroll in the next 25 years. (Although this increase seems small it must be remembered that the rates of growth throughout the sub-sectors are different - the greatest growth is in health which has the lowest cost at present).

If these percentages are translated into dollar amounts over the period we can see what large amounts of money will be paid into the plans through contributions; what large amounts of assets will be accumulated in the funds and become available for investment, and how large unfunded actuarial liabilities could become in relation to the financial base of the total number of taxpayers in the province.

How significant these pension obligations will appear a quarter century from now depends largely on the rate of economic development in the meantime: how steadily productivity will increase and whether Ontario's Gross Provincial Product will grow sufficiently to accommodate the growth in public sector expenditures, payrolls, and pension costs. No precise assessment of "affordability" has been attempted by the Commission, however. We are much more concerned with the need, as demonstrated in this chapter, for intelligent and co-ordinated planning of public sector expenditure on pensions - whether the level of pensions be generous or merely adequate. Affordability can be properly assessed only when and to the extent that costs are determinable and controllable.

In the study paper which follows, Mr. Coward takes an informed look at the growth prospects, over the next twenty-five years, for Ontario public sector employment payrolls and pension costs.

FUTURE PENSION COSTS, ONTARIO PUBLIC SECTOR: A SCENARIO

Introduction

Pension costs in the public service have become a very important and growing item of provincial expenditure. Concern has been expressed that the burden placed on future taxpayers might become intolerable, with serious effects both for the former employees and for the provincial economy. Accordingly, an examination has been made of the likely trend and the impact of employee benefits provided by the Government of

Ontario. The prime objective of the study is to estimate at five-year intervals over the next 25 years the cost of pensions for Ontario public servants in relation to payrolls and other indices.

The Ontario public sector is taken to include five major sub-sectors: Provincial Government, Municipal Government, Health, Education and Provincial Utilities. Each of these sub-sectors is dominated by one major pension plan: the Public Service Superannuation Fund, the Ontario Municipal Employees Retirement System, the Hospitals of Ontario Pension Plan, the Teachers' Superannuation Fund and the Ontario Hydro Plan. These five plans together encompass over 80 per cent of all Ontario public sector employees.

At the end of 1977 the Ontario public sector included 455,000 active employees and there were some 75,000 pensioners. The employers were contributing some $400 million a year and the employees some $300 million. The assets of the plans amounted to $7.5 billion and the value of earned pensions is estimated to be in the order of $10.4 billion. These numbers and dollar amounts are all rising rapidly.

In what follows we will be concerned only with the benefits financed by the Government of Ontario. The study therefore excludes the Ontario-based employees of the federal public service, the Armed Forces, the RCMP and other Government of Canada organizations. It also excludes the benefits and contributions of Ontario public service employees under the Canada Pension Plan.

Methodology

1. Assumptions were made as to future growth rates of employment in the five sub-sectors, taking into account the likelihood that each would grow faster or slower than the total population of the province. Growth in the work-force is likely to differ markedly from one sub-sector to another for reasons which are discussed below.

2. Pension costs depend not only on the number of employees but also on their age distribution. In order to obtain an indication of the age and sex distribution in future years, five-year survival rates were developed and applied to the present age distributions which are available in five-year age groups. By applying these rates, for example, to the number of employees age 50-54 in the year 1980 one would obtain the number of employees age 55-59 in the year 1985. New employees are assumed to join each sub-sector in such numbers as will maintain the assumed growth rate of total employment, as determined in step (1) above. Entry ages of the new entrants for the five sub-sectors are taken to be distributed in the same manner as actual entrants in recent years to the five major pension plans.

The result of this process is to generate an estimate of the numbers and ages of the employees in each sub-sector at five-year intervals from 1980 to 2005.

3. In the next step an estimate is made of the salaries of these employees. The projection of salaries will allow for two factors:

   a) the manner in which average salary varies with age, based on current statistics;

   b) the assumption as to the overall rate of salary increase with time.

   The "most probable" assumptions established for all the actuarial work undertaken by the Commission are used throughout. Thus overall salary increases will be 7.3 per cent from 1980-84, 7.0 per cent from 1985-89, and 6.1 per cent from 1990.

4. Next, pension costs in each of the five sub-sectors in future years are estimated as percentages of salary, having regard among other things to the changing age distribution. Recent plan amendments must be considered; for example, the change in the Ontario Municipal Employees Retirement System from a career average to a final average earnings basis on January 1, 1978, and the recently introduced indexing of pensions up to 8 per cent per annum for public servants and teachers. While allowance is made for recent amendments, the estimates will assume no further change in the terms of the pension plans or of social security benefits, in particular the Canada Pension Plan.

Growth Rates in the Five Public Service Sub-sectors

Statistics on the growth of government employment and population are given in Tables 7, 8, and 9.

Table 7 shows that Ontario government employment has grown about twice as fast (3.7 per cent per annum in 1961-76) as the total population (1.9 per cent per annum). Nevertheless, the growth rate in 1971-76 was much less than in the previous five years, 1966-71.

Table 8 illustrates vividly the different growth rates of employment in the different sub-sectors, and demonstrates that they have varied greatly over the years. Figures are given both for total sub-sector and for the major pension plan of the sub-sector (i.e., PSSP, OMERS, HOOPP, TSF, and Hydro).

Table 9 shows the projected population in Ontario on the Commission's most probable estimates. It will be seen that the projected

growth rate of the population age 0-19 is only .7 per cent per annum on the average, compared with 1.5 per cent for the population of working age and 2.2 per cent for those over age 65.

These statistics form the background for making the necessary assumptions as to growth rates in the five sub-sectors of government employment.

Table 7
Provincial Government Employment and Population, 1961-1976 (showing number and annual percentage growth rates)

	Provincial government employment (June 30)(a)				Population(b)			
Year	Ontario		Canada except Quebec and British Columbia		Ontario		Canada	
		(Per cent)		(Per cent)		(Per cent)		(Per cent)
1961	75,847		162,880		6,236,092		18,238,247	
1966	84,914	2.3	191,249	3.4	6,960,870	2.3	20,014,880	1.7
1971	118,397	6.8	267,522	7.0	7,703,105	2.1	21,568,310	1.6
1976	130,977	2.1	314,324	3.2	8,264,465	1.4	22,992,605	1.4
Annual growth rate 1961-1976	3.7%		4.5%		1.9%		1.6%	

a Provincial Government as Employers.
b Census of Canada.

Table 8
Growth of Employment in Ontario Public Sector (showing number and annual percentage growth rates)

Year end	Provincial government sub-sector		PSSF		Municipal government sub-sector		OMERS		Health sub-sector		HOOPP		Education sub-sector		TSF		Provincial utilities sub-sector		Ontario Hydro	
		(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)
1960	29,768	7.6	28,413	7.8							10,988	16.9			48,001	8.7				
1965	42,904	8.5	41,432	8.7	50,421	12.0	23,918	22.1			23,942	11.0			73,006	5.0			11,953	5.6
1970	64,538	9.3	62,888	9.3	88,971	6.7	64,993	11.8			38,819	10.0	116,617	12.8	93,000	13.6			15,711	8.4
1971	70,563	2.5	68,735	2.4	94,931	4.4	72,629	6.3	45,588	11.2	42,694	11.0	131,515	12.5	105,657	13.5	17,373	8.2	17,032	.9
1972	72,339	3.4	70,379	3.4	99,074	6.2	77,258	8.5	50,681	3.6	47,409	3.6	147,926	16.3	119,873	16.8	18,794	.7	17,187	1.6
1973	74,823	2.6	72,748	2.5	105,207	3.7	83,854	5.8	52,505	3.3	49,098	3.6	171,264	-4.1	139,971	-5.8	18,918	2.1	17,461	3.8
1974	76,770	1.4	74,540	1.1	109,136	7.6	88,708	9.7	54,256	5.3	50,872	5.1	164,180	.1	131,808	4.2	19,308	2.8	18,126	6.8
1975	77,849	-.3	75,371	-.4	117,484	3.9	97,275	5.3	57,114	11.7	53,474	11.6	164,411	5.0	137,280	1.4	19,856	6.2	19,355	1.0
1976	77,623	2.4	75,065	2.2	122,020	2.7	102,432	3.6	63,794	5.5	59,680	5.6	172,707	-1.0	139,138	-1.7	21,084	1.0	19,555	4.7
1977	79,476		76,712	-	125,270		106,143	8.9	67,271		63,000	2.9	170,899		136,711	-1.0	21,285		20,478	7.4
1978			77,564	-.7			115,615	.4			64,823	.4			135,298				21,997	5.0
1979			77,047				116,134				65,052								23,100	

Source Ontario Public Service Pension Plan Data, and supplemental data from Ministry of Treasury, Economics and Intergovernmental Affairs.

Table 9
Population of Ontario, 1975-2005

Year	Ages 0-19			Ages 20-64			Ages 65 and over			All ages		
(July 1)	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
						(in thousands)						
1975	1,522	1,451	2,973	2,387	2,356	4,743	304	412	716	4,213	4,219	8,432
1980	1,525	1,452	2,977	2,653	2,622	5,275	349	471	820	4,527	4,545	9,072
1985	1,594	1,518	3,112	2,920	2,880	5,800	384	531	915	4,898	4,929	9,827
1990	1,746	1,659	3,405	3,081	3,034	6,115	443	617	1,060	5,270	5,310	10,580
1995	1,855	1,761	3,616	3,222	3,174	6,396	495	689	1,184	5,572	5,624	11,196
2000	1,879	1,784	3,663	3,414	3,372	6,786	534	744	1,278	5,827	5,900	11,727
2005	1,847	1,753	3,600	3,678	3,638	7,316	569	793	1,362	6,094	6,184	12,278
Annual growth rate 1975-2005			.7%			1.5%			2.2%			1.3%

Source Royal Commission on the Status of Pensions in Ontario, CPP Financial Projections.

The rates of growth in the number of public sector employees will have a very important effect on the cost of employee benefits. A small change in annual growth rate has a large effect when compounded over periods up to 25 years. Although statistics are available as to public service employment in past years separately for the five sub-sectors considered in this report, the factors that influence public service growth have been changing. Because the background of demography, politics, economics and social standards is involved, the assumptions of growth rate are somewhat speculative.

Two factors, potentially of great significance, are particularly hard to assess. One is the granting of the right to strike to public service employees, which strengthens the bargaining position of their associations and thus makes it more difficult to control the levels of public service employment and remuneration. The other, which operates in the opposite direction and has become stronger in the last few years, is taxpayer resistance. This has not only slowed the provision of new government services but has even resulted in cutbacks in some existing services.

Essentially we have assumed a continuation of the trends in recent years, allowing for certain obvious influences, but ignoring such possibilities as a major economic depression or a taxpayers' revolt similar to that in California. Our assumptions are thought to be reasonable; but a much more sophisticated study would be needed to arrive at a "best estimate" of growth rates (which no doubt would vary with calendar year instead of being level as we have assumed). Accordingly the results are best regarded as an example of what would happen if our particular assumptions were borne out by experience, rather than an estimate. The fact that we arrive at a greatly increased cost of provincial government does not mean that our assumptions are improbable. It does mean that present trends to depend more and more on government services give cause for concern in the area of future cost.

Provincial Government

The Ontario public service has grown greatly but unevenly in the past. The ups and downs in growth have been in response to the demands for new government services, the absorption of outside organizations into the government, and budget stringency.

Recently the government has adopted a restraint program, and there appears to be growing pressure against tax increases as well as a movement to decentralize certain operations. On the other hand, the public service associations have obtained the right to strike, which puts them in a stronger position to resist cutbacks.

Taking all these factors into account, we anticipate that total employment in the provincial government sector will grow slightly faster than the total adult population, say at 2 per cent per annum.

Municipal Government

Municipal employment has been growing much faster than provincial. OMERS shows even faster growth, but this is not a sure guide because OMERS is an immature plan which will eventually cover an even larger percentage of the municipal sub-sector. Factors that may encourage the increase in municipal employment include continuing urbanization leading to additional demands for police, fire, garbage, roads and other services. In addition, services now contracted out to private employers are increasingly being provided directly by municipal employees. In spite of resistance to higher property taxes, the demand for additional municipal services is strong.

The annual growth rate in the municipal sub-sector was 12 per cent from 1965 to 1970 and 5 per cent from 1970 to 1977. An employment growth rate of 4 per cent per annum has been assumed for the future.

Health

This is a rapidly growing sector, potentially subject to almost insatiable demands from the public. Medical advances are costly both in money and manpower. Public health measures have reduced sickness, but higher health standards are demanded by all sectors of the population, especially as the cost of health care is prepaid. It is also possible that government will have to participate in new forms of medical coverage such as dental and vision care. As the remuneration of doctors increases, there will be need for paramedics employed in the health sector. A growth rate equal to that of the population plus at least 3 per cent per annum seems likely, for a total of 5 per cent per annum.

Education

Teachers are the victims of demographic change because of the dramatic fall in the birth rate that took place in the 1960s. The number of people in education actually fell in certain years after 1973, and in fact employment is no higher today than it was in 1973. The increasing demand for adult education and smaller classes do not make up for the smaller number of children and the increasing cost of higher education.

The teaching force in Ontario schools was estimated by the Commission on Declining School Enrolments in Ontario as follows:

Academic year	Elementary and secondary school enrolment
1980	90,233
1990	86,090
2000	88,526

Over the 20 years this is a decline of .15 per cent per annum. However, the fertility assumptions adopted by the Commission result in a 20 per cent increase in population under age 20 between 1975 and 2005, or a .7 per cent annual rate of increase. In view of the above, employment in education is assumed to increase at .75 per cent per annum.

Provincial Utilities

Ontario Hydro has cut back on its projection of future energy needs. Nevertheless, per capita usage of energy seems certain to increase. The move to a "conservation society" is unlikely to reduce aggregate demand significantly. Measures to protect the environment may well result in more manpower being needed to produce a given amount of energy. Even if energy is produced more efficiently, and demand does not increase as fast as it has in the past, a growth rate of 3 per cent per annum is likely.

Age-Sex Distribution

The distribution of employees in five-year age groups and five-year service groups is available for the major pension plans in four of the five sub-sectors (separately for males and females) subject to minor omissions. Unfortunately such a full breakdown is not available from OMERS; however, from the distribution of OMERS employees in ten-year age groups a fair approximation to the current age distribution of the municipal sector may be estimated.

The distribution by age group and sex (omitting service) is shown in Table 10.

Table 10

Age Distribution of Employees, Ontario Public Sector, December 1977

Age	Provincial government		Municipal government(a)		Health		Education		Provincial utilities	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Female
-24	2,753	5,357	6,468	5,768	568	5,119	1,580	6,110	1,474	725
25-29	7,214	5,487	11,591	5,923	1,533	9,347	10,936	22,333	3,113	768
30-34	7,161	3,652	12,103	4,017	1,838	6,439	14,930	14,306	3,110	466
35-39	5,757	2,674	9,927	3,889	1,577	5,539	12,914	9,907	2,150	271
40-44	5,402	2,452	9,611	3,586	1,339	4,953	8,941	7,042	1,875	204
45-49	5,565	2,543	10,595	3,856	1,470	5,261	6,860	5,909	2,318	217
50-54	6,177	2,883	11,263	4,389	1,537	5,207	5,030	4,623	2,295	228
55-59	5,737	2,607	9,362	3,179	1,562	4,459	3,380	3,275	1,723	169
60-64	4,002	1,764	6,387	2,164	1,426	3,113	1,928	2,081	872	65
65	193	59	577	174	291	398	173	147	54	3
Total	49,981	29,478	87,884	36,945	13,141	49,835	66,672	75,733	18,894	3,116
	79,459		124,829		62,976		142,405		22,100	
Age not known	428		4,186		6,134		12,299		-	
	79,887		129,015		69,110		154,704		22,100	

a Partly estimated.

Source Ontario Public Sector Pension Plan Data.

The proportions of males and females vary remarkably in the five sub-sectors:

	Males	Females
	(Per cent)	
Provincial government	62.9	37.1
Municipal government	70.4	29.6
Health	20.9	79.1
Education	46.8	53.2
Provincial utilities	85.9	14.1
All sub-sectors (weighted average)	54.8	45.2

The above ratios are derived from statistics at the end of 1977. The sex ratios have changed very little in the last ten years, except in education where the percentage of males has been rising.

The percentage of females in the work-force in 1980 (derived from population figures and work-force participation rates used elsewhere in the Commission's report) is 40.3 per cent, and is expected to rise to 41.5 per cent by year 2005. As the difference is so small, and as no trend for government to employ a larger proportion of females can be observed, we assume no change in the ratios of males to females in future.

It will be observed that the public service as a whole is employing a larger percentage of females (45.2 per cent) than the percentage of females in the total work-force (40.3 per cent). However, the percentage differs greatly among different public service employers.

Five-Year Survival Factors

The five-year survival factors are shown in Table 11. These are based on the following actuarial assumptions, which as far as possible parallel those used in the actuarial valuations of the plans.

Termination Rates

The probabilities of terminating employment have a very important effect on the age-service distribution of employees in future years. Terminations reduce the cost of pension plans, both because some employees lose their pension rights and because those who have vested deferred annuities are not fully protected from inflation and receive less for their years of service than if they had not terminated.

Table 11
Five-year Survival Factors, Showing Probability that an Employee at a Given Age Will Still be in Service Five Years Later - Ontario Public Sector

	Provincial government, Municipal government and Health		Education and Provincial utilities	
Age	Males	Females	Males	Females
22	.388	.190	.694	.593
27	.572	.278	.810	.695
32	.660	.404	.867	.776
37	.728	.544	.897	.820
42	.783	.643	.916	.875
47	.799	.686	.915	.887
52	.779	.714	.878	.836
57	.627	.515	.683	.604
62	0	0	0	0

Earlier vesting and a greater degree of indexing would of course reduce these losses, but we are assuming that the present plan terms remain unchanged.

Examination of the past and the termination rates used in the actuarial valuations shows that the rates for the PSSF, OMERS and HOOPP are not very different (Table 12). Accordingly, we adopted the rates used in the last actuarial valuation of the Public Service Superannuation Plan, which were based on actual experience of the plan in the 1965-73 period.

The termination rates for teachers and Hydro employees appear to be significantly lower than for the other groups. Indeed no withdrawals from employment were allowed for in the last actuarial valuation of the Hydro Pension Plan, and the actuarial report states: "An examination of the rates of termination of employment shows that less than 1 per cent of members terminate with over 5 years' service. Members terminating with less than 5 years' service have very little financial effect on the Plan."

The termination rates adopted in the last valuation of the TSF for those with three or more years of service are also very low (e.g., below 1 per cent for males age 40 or over and females age 45 or over). Accordingly, we developed a set of termination rates appropriate to the teachers and Hydro employees, which rates are much less than those of provincial government, municipal government and hospital employees.

Table 12

Termination of Employment Rates from Actuarial Reports, Ontario Public Sector

	Public Service Superannuation		OMERS		Hospitals of Ontario		Teachers' Superannuation				Ontario Hydro	
							First year		After 3 years			
Age	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
20	.263	.320	–	–	.250	.285	–	–	–	–	–	–
25	.145	.274	.149	.299	.160	.250	.113	.141	.018	.070	–	–
30	.097	.213	–	–	.115	.200	.113	.149	.016	.052	–	–
35	.075	.146	.074	.139	.090	.125	.113	.143	.012	.027	–	–
40	.059	.103	–	–	.060	.075	.113	.135	.008	.014	–	–
45	.042	.074	.027	.058	.010	.025	.113	.128	.005	.008	–	–
50	.033	.060	–	–	–	–	.113	.119	.005	.005	–	–
55	.023	.025	–	.014	–	–	–	–	.005	.005	–	–

Note: No terminations are assumed in Ontario Hydro actuarial report, which states that less than 1 per cent of members terminate with over 5 years' service.

Mortality

Group Annuity Mortality Table for 1971 (GAM 1971).

Disability

Public service rates, modified in the case of teachers.

Retirement

The pattern of retirement by age does not vary greatly from plan to plan. We adopted the retirement age probabilities shown in the 1973 actuarial valuation of the Public Service Superannuation Plan (see Table 13).

Entry Ages

The ages at which new employees are hired are assumed to be the same as in recent years, as estimated from the age distribution of employees with under five years of service. It is notable that recruitment takes place over a wide spread of ages in Ontario government service and health organizations, while teachers and Hydro employees are generally hired at younger ages. The distribution used in the calculation is shown in Table 14.

It should be noted that the various rates mentioned above are not being used to make an actuarial valuation of the groups, but to estimate changes in the age distributions with time. The assumptions that have been made are quite broad, but should be sufficient to determine in a rough way the trend of public service pension costs.

The information as to entry ages of Municipal government employees was inadequate; accordingly it was assumed that they would have the same entry age distribution as Provincial government employees.

Table 13
Estimated Average Retirement Age

	Males	Females
Provincial government	62.2	60.7
Municipal government	61.5	61.4
Health	63.0	63.0
Education	63.1	62.2
Provincial utilities	N/A	N/A
Average age calculated from the assumptions (excluding disability)	63.2	62.5

Source Public sector study (Volume VII).

Retirement Rates Adopted

Age	Males	Females
55	.0084	.0174
56	.0110	.0184
57	.0115	.0201
58	.0183	.0215
59	.0277	.0369
60	.1237	.2004
61	.0786	.0899
62	.0635	.0832
63	.0557	.0769
64	.0839	.0997
65	1.0000	1.0000

Table 14
Entry Ages of New Employees, Ontario Public Sector(a)

Central age	Provincial government		Municipal government		Health		Education		Provincial utilities	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	(Per cent)		(Per cent)		(Per cent)		(Per cent)		(Per cent)	
20	19.1	35.5			11.3	22.9	10.1	20.4	25.0	48.9
25	28.9	24.5			22.6	30.3	49.1	41.4	33.9	26.9
30	16.4	13.1			19.5	14.2	21.0	15.2	18.9	11.4
35	9.9	8.0			12.4	9.8	8.9	10.7	10.3	5.8
40	7.7	6.7			9.7	8.2	4.5	6.0	5.4	2.9
45	7.3	5.3			8.4	6.6	3.1	3.6	3.2	2.4
50	6.2	4.5			9.1	5.0	2.0	1.8	2.0	1.0
55	4.5	2.4			7.0	3.0	1.3	.9	1.3	.7
	100.0	100.0			100.0	100.0	100.0	100.0	100.0	100.0

a Entrants at age 60 and above omitted.

Source Ontario Public Service Pension Plan Data.

Population Projections 1980 to 2005

On the above data and assumptions we have calculated the age distribution of male and female employees in each of the five sub-sectors for the years 1980, 1985, 1990, 2000 and 2005. These numbers of employees are shown in five-year age groups for each sex.

Table 15 shows the estimated total number of employees for the five sub-sectors from 1980 to 2005. In aggregate we expect the size of the Ontario public sector to more than double in the next 25 years.

From the same table it can be seen that Ontario public employment as a whole, expressed as a percentage of the Ontario population of working age (20 to 64) will rise from about 8.8 to 13.2 per cent, a very significant shift. Provincial plus municipal government employment will rise from 4.1 to 6.7 per cent.

Table 16 shows for 1980 and 2005 the percentage distribution of employees by age group. The provincial and municipal government sectors are likely to get younger, due to the expansion of staff and hiring new recruits at relatively young ages. Rapid growth will keep the distribution young. The same applies, to a slightly less degree, to the health sector, which tends to recruit new employees at higher ages than government service. Education, a slow-growth sector with low terminations of employment, is however a marked exception, the average age rising substantially. The age distribution of Hydro employees will not be very greatly changed, since we expect the same trends in future as in the past, which means that fairly rapid growth will be offset by exceptionally low terminations of employment.

Table 15
Estimated Number of Employees, Ontario Public Sector Employment by Sub-sector, 1980-2005

	Provincial government	Municipal government	Health	Education	Provincial utilities	All sub-sectors
Males						
1977	50,287	88,928	14,258	72,405	18,966	244,844
1980	50,539	92,485	14,685	72,405	21,344	251,458
1985	55,799	112,522	18,742	75,162	24,743	286,968
1990	61,606	136,900	23,919	78,023	28,685	329,133
1995	67,113	166,558	30,529	80,993	33,253	378,446
2000	75,098	202,644	38,963	84,077	38,549	439,331
2005	82,913	246,546	49,727	87,277	44,688	511,151
Females						
1977	29,600	40,087	54,852	82,299	3,134	209,972
1980	29,745	41,691	56,498	82,299	3,509	213,742
1985	32,841	50,724	72,107	85,431	4,068	245,171
1990	36,259	61,713	92,029	88,684	4,716	283,401
1995	40,033	75,083	117,454	92,060	5,467	330,097
2000	44,199	91,349	149,904	95,565	6,338	387,355
2005	48,799	111,141	191,320	99,203	7,348	457,811
Total						
1977	79,887	129,015	69,110	154,704	22,100	454,816
1980	80,284	134,176	71,183	154,704	24,853	465,200
1985	88,640	163,246	90,849	160,593	28,811	532,139
1990	97,865	198,613	115,948	166,707	33,401	612,534
1995	107,146	241,641	147,983	173,053	38,720	708,543
2000	119,297	293,993	188,867	179,642	44,887	826,686
2005	131,712	357,687	241,047	186,480	52,036	968,962

Table 16
Age Distributions, Ontario Public Employment by Sub-sector, 1980 and 2005

	Provincial government				Municipal government				Health				Education				Provincial utilities			
	Males		Females		Males		Females		Males		Females		Males		Females		Males		Females	
Age group	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005
	(Per cent)				(Per cent)				(Per cent)				(Per cent)				(Per cent)			
-24	5.5	8.0	18.2	22.3	7.4	9.1	15.7	23.7	4.4	5.5	10.4	15.1	2.4	2.3	8.1	5.6	7.8	7.3	23.3	17.8
25-29	14.4	15.0	18.6	19.2	13.3	16.6	16.1	20.0	11.9	12.7	18.9	22.3	16.4	12.5	29.6	14.5	16.5	14.4	24.7	19.0
30-34	14.3	14.7	12.4	13.1	13.9	15.7	10.9	13.3	14.3	15.2	13.0	14.3	22.5	15.2	18.9	13.6	16.4	15.9	15.0	15.7
35-39	11.5	13.0	9.1	9.8	11.4	13.3	10.6	9.8	12.3	13.0	11.2	11.0	19.4	13.2	13.1	13.1	11.4	15.3	8.7	12.9
40-44	10.8	11.9	8.3	9.0	11.0	11.6	9.8	8.8	10.4	12.7	10.0	10.1	13.4	11.8	9.3	12.0	9.9	13.5	6.5	10.3
45-49	11.1	11.4	8.7	8.6	12.1	10.9	10.5	8.2	11.4	12.0	10.7	9.5	10.3	11.0	7.8	11.8	12.2	11.7	7.0	9.2
50-54	12.4	11.1	9.8	8.2	12.9	10.0	11.9	7.6	12.0	12.0	10.5	8.4	7.6	12.4	6.1	14.4	12.1	10.2	7.3	7.9
55-59	11.5	9.6	8.9	6.7	10.7	8.5	8.6	6.0	12.2	10.7	9.0	6.6	5.1	13.3	4.3	10.1	9.1	7.9	5.4	5.1
60-	8.5	5.3	6.0	3.1	7.3	4.3	5.9	2.6	11.1	5.3	6.3	2.7	2.9	8.3	2.8	4.9	4.6	3.8	2.1	2.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Projection of Payrolls

Having obtained the estimated numbers of employees by sex and age group in future years, we may then estimate the payrolls. Salary depends on sex and age as demonstrated in Table 17. Although the law against discrimination requires males and females to be paid equally for equal work, it appears that at present females generally have less senior positions. Assuming that this situation changes in favour of the females we may expect female remuneration to rise somewhat faster than the average and male remuneration somewhat slower. As we have assumed for reasons noted above that the male to female ratio in the public service will not alter significantly, and that salaries will rise overall in accordance with the Commission's most probable economic assumptions, a shift towards equalizing male and female salaries will not alter the aggregated payrolls.

An exception to the general observation that average salaries of females are less than those of males is found in the members of HOOPP, where females under age 30 earn on average more than the males. In all other age groups however, the males on average earn more.

Pension Costs as a Percentage of Pensionable Payroll

Provincial Government

Currently employees contribute to the Public Service Superannuation Plan 6 per cent of their salaries, reduced by their contributions to the Canada Pension Plan. The employer matches these contributions and also pays for any deficiencies that may arise.

Table 17
Salaries by Age Group, Ontario Public Employment, by Sub-sector - Dollar Average and Percentage of Average for All Ages

Age group	Public Service Superannuation Plan 1976				Teachers' Superannuation Plan 1978				Hospitals of Ontario Pension Plan 1978				Ontario Hydro Pension Plan 1977			
	Males		Females		Males		Females		Males		Females		Males		Females	
	($)	(%)	($)	(%)	($)	(%)	($)	(%)	($)	(%)	($)	(%)	($)	(%)	($)	(%)
-24	11,710	71.7	9,956	86.3	13,400	55.4	13,277	71.3	11,534	75.8	12,681	92.4	14,780	69.7	11,703	85.7
25-29	14,347	87.8	11,518	99.9	16,967	70.1	16,407	88.1	13,341	87.6	14,352	104.5	17,987	84.8	13,372	97.9
30-34	16,435	100.5	12,082	104.8	22,083	91.3	19,223	103.1	15,148	99.5	14,428	105.1	20,898	98.5	14,341	105.0
35-39	17,372	106.3	12,056	104.5	26,063	107.7	19,592	105.1	16,497	108.3	14,353	104.5	22,679	106.9	14,865	108.8
40-44	17,656	108.0	11,997	104.0	27,283	112.8	19,800	106.3	16,538	108.6	14,041	102.3	22,570	106.4	15,187	111.2
45-49	17,809	109.0	12,057	104.5	27,946	115.5	20,538	110.2	16,291	106.9	13,785	100.4	22,389	105.5	14,463	105.9
50-54	17,320	106.0	11,805	102.3	28,101	116.1	21,009	112.7	15,934	104.6	13,077	95.3	23,665	111.5	15,015	109.9
55-59	16,619	101.7	11,958	103.7	27,458	113.5	21,150	113.5	15,220	99.9	12,641	92.1	23,605	111.2	14,823	104.2
60-	15,804	96.7	11,785	102.2	26,486	109.5	20,004	107.3	14,540	95.5	12,356	90.0	23,387	110.2	14,926	109.3
All ages	16,342	100.0	11,534	100.0	24,203	100.0	18,637	100.0	15,233	100.0	13,279	100.0	21,220	100.0	13,660	100.0

In addition, both employer and employee pay 1 per cent of salary to the Superannuation Adjustment Fund (SAF) which provides for the indexing of pensions with the Consumer Price Index, up to an 8 per cent increase in any one year. Pensions of those who retired prior to 1976 are indexed by direct payments from the Consolidated Revenue Fund.

The total of both employer and employee payments, including special payments to liquidate deficiencies but excluding the SAF contributions, was estimated at 13.2 per cent of gross payroll in 1976 (TEIGA survey). Taking employee contributions as averaging 5 per cent, this suggests an employer cost of 8.2 per cent of gross pay. In the public sector study, employer contributions, <u>including</u> the extra 1 per cent to SAF, are estimated as a percentage of <u>pensionable</u> payroll to be 9.60 per cent in 1976 and 9.94 per cent in 1977.

The actuarial report as at December 31, 1976 puts employer contributions to the Public Service Superannuation Fund at 6 per cent of pensionable salary less CPP contributions plus special payments of $54.5 million, the last item being equivalent to 5 per cent of pensionable salary. This indicates a total employer contribution of 10.1 per cent of payroll in 1976. The report points out that post-retirement adjustments to compensate for inflation are not paid from the PSSF but from the Consolidated Revenue Fund or from the SAF. Accordingly, the 10.1 per cent does not include the cost of indexing pensions.

The special payments of $54.5 million include a constant item of $6.0 million, that is, the interest on the initial unfunded liability. This item is .55 per cent of 1978 pensionable payroll, and the percentage will fall to under .10 per cent in 25 years due to growth of payrolls. For this reason the employer's cost could be expected to fall as a percentage, but as other items may increase the costs, we have ignored this reduction. Although the existing deficiencies are being liquidated in 15 years or less through the special payments, further deficits are expected to arise from time to time because the employer's current service contribution is fixed by legislation. The cost to the government of the Public Service Plan is therefore taken as 10.1 per cent of salary, plus a minimum of 1 per cent for the SAF, plus indexing cost for those who did not contribute to SAF.

Municipal Government

Because OMERS is immature and was fundamentally altered effective January 1, 1978, to provide pensions on a final 5-year average basis, only information for the last two years as to employer costs is relevant. The actuarial report on the new plan states that the specified contribution rates of employees (averaging 6.1 per cent of earnings), plus equal contributions from the employer, will be adequate to support the basic OMERS pensions for the foreseeable future. On a level cost method the actuarial report shows that special payments of 1.2 per cent

of earnings are also required. Employer costs therefore comprise the following items:

1. Regular contributions averaging 6.1 per cent of earnings. (Regular contributions are 5.5 per cent of earnings up to the YMPE plus 7 per cent on excess earnings, plus 1 per cent additional for employees with normal retirement age of 60, who comprise 14 per cent of total membership).

2. Special payments of 1.2 per cent of earnings.

3. The cost of prior service benefits and supplementary benefits purchased by the municipality, which was 1.5 per cent of payroll in 1978, nearly all paid by the employer.

4. Any deficits arising in future; deficits are now more likely to occur and would require an adjustment of the contributions specified under the act.

5. The cost of indexing or otherwise increasing pensions for inflation if these additions are awarded in future.

Assuming the same mix of basic and supplementary benefits in future, the total employer cost may be put at (1) plus (2) plus (3) - that is, 8.8 per cent of members' earnings. From another point of view, in the long run the OMERS plan will probably require total contributions roughly the same as those under PSSF, but the members are paying just over 1 per cent more than members of PSSF. Hence the cost has been put at 9 per cent, exclusive of the cost of indexing.

Health

The Hospitals of Ontario Pension Plan requires employee contributions equal to 4.5 per cent of salary up to the YMPE and 6 per cent on salary in excess. The 1978 actuarial report recommends employer contributions equal to 158 per cent of employee contributions, which will cover both current service costs and special payments. This means that employee contributions of about 7.7 per cent of payroll are recommended. This figure is consistent with that in the public sector study. The plan is funded by an accrued benefit method (with salary projection) which requires lower contributions than a projected method so long as the number of members is increasing.

Pensions after retirement have only once been increased. In 1979 increases of 40 per cent were granted to those who retired before 1974, with lower increases for more recent retirees. The cost of the pensioner increases is .2 per cent of salary, included in the 7.7 per cent figure. We have assumed the employer cost to be 7.7 per cent excluding indexing, which therefore allows for a small increase in future. This estimate depends on the assumption that employment in the health sector

will continue to rise fairly rapidly. If employment were to stabilize or decline, one would expect the average age to rise; and, because of the funding method employed by HOOPP, the employer's pension cost percentage would also increase.

Education

The employees contribute to the Teachers Superannuation Fund 6 per cent of salary reduced by contributions to the Canada Pension Plan, or on average roughly 5.2 per cent of total salary. Teachers also contribute 1 per cent, matched by the employer, to the SAF.

It is not easy to reconcile the data produced by TEIGA with those in the public sector study (Volume VII). Contributions are shown as follows:

Year	(1) TEIGA: Total contribution plus special payments as percentage of gross payroll	(2) Column(1) less 5.2 per cent for employee contributions	(3) Public sector study: Employer payments as percentage of pensionable payroll(a)
	(Per cent)	(Per cent)	(Per cent)
1977			12.75
1976			9.84
1975	17.1	11.9	15.74
1974	20.8	15.6	14.80
1973	14.2	9.0	7.61
1972	15.2	10.0	8.65
1971	14.7	9.5	8.64

a Excludes indexing cost.

The actuarial report as at December 31, 1978 (which does not include indexing costs and supplements) recommends that the employer make the following contributions:

1. Regular contributions matching those paid by employees, equal to 6 per cent of salary reduced by CPP contributions, say 5.2 per cent of total salary.

2. Special payments of $119,827,000 of which $22,980,000 represents interest on the initial unfunded liability and is payable in perpetuity. The other special payments expire on average in 1989. The special payments amount to 5.3 per cent of pensionable earnings at the valuation date. As in the public service, the interest portion will decline as a percentage from the present 1 per cent, but no specific allowance has been made for the decline.

3. The actuarial report points out that the regular contributions of the employer ought to be higher by .8 per cent of salary, if new teachers are not to cause losses when they enter the plan. This suggests that employer contributions of about 11.3 per cent are required, exclusive of indexing ocst.

In considering the employer contributions for the future, it should be noted that the actuarial assumptions were changed in the last valuation, giving rise to a large reduction in unfunded liabilities of a non-recurrent nature.

The average employer payment for 1971 to 1975 from the TEIGA figures shown above is 11.2 per cent; the average for 1971 to 1977 from the public sector study is 11.1 per cent. Unfortunately, the payments have been irregular and data for recent years are not available. Based on the information we have, it is not unreasonable to assume that employer costs will be 11.2 per cent in future (excluding indexing).

Provincial Utilities

Less information is available as to the Ontario Hydro pension costs than the other plans. Employees contribute 3-7/16 per cent of earnings up to the YMPE and 5 per cent on earnings in excess; they do not contribute towards indexing for inflation.

In the public sector study, employer contributions are estimated at 15.5 per cent in 1977, including the cost of upgrading the pensions of retired employees. Over the five years ending in 1977 the average is 13.4 per cent.

The actuarial report on the Ontario Hydro Plan as at December 31, 1977, finds the 1978 current service cost to be 9.5 per cent of payroll, and recommends unfunded liability payments of $35.6 million equivalent to 7.8 per cent of the estimated 1978 salaries. This includes about .5 per cent arising from the 1977 pension increases (when pensions in payment were raised by 8 per cent). In addition, the 1976 liability is being paid off faster than required by the Pension Benefits Act, so that the special payments are $11.9 million (2.6 per cent) higher than would otherwise be the case. Thus the actuarial report suggests an employer cost of about 14.2 per cent excluding indexing, if new unfunded liabilities arise at each valuation (as in the past) to replace the unfunded liabilities that are liquidated.

Ontario Northland has even higher costs, but has only 7 per cent of the employment in the Provincial utilities sub-sector.

The public sector study indicates that costs for the Provincial utilities sub-sector in the period 1973 to 1977 have been about 13.8 per cent overall. We have compromised and assumed that the employer cost will be 14 per cent exclusive of the indexing cost.

The Cost of Indexing Pensions

Pensions for public servants and teachers are indexed with the Consumer Price Index up to 8 per cent a year through the Superannuation Adjustment Fund. Hydro pensions have recently been increased 8 per cent every two years by amendments to the plan, that is, on a regular ad hoc system. OMERS and HOOPP pensions have been increased from time to time in the past, but no formal arrangements exist for future indexing.

Nevertheless it seems likely that augmentation of pensions to compensate for inflation will take place in all public sector plans, whether by ad hoc increases or SAF-type arrangements. We assume that indexing costs will be incurred in each of the five sub-sectors in this study.

The cost of indexing for public servants and teachers comprises three items:

- payments to pensioners who contributed to SAF;
- payments to pensioners who did not contribute to SAF;
- payments to pensioners under prior ad hoc pension adjustments.

The amounts under these headings in the years ending March 31, 1978 and March 31, 1979 are shown in Table 18.

Table 18
Indexing Costs, PSSF and TSF, 1978 and 1979

Year ending	March 31, 1979		March 31, 1978	
	(Thousands of dollars)	(Per cent of pay)	(Thousands of dollars)	(Per cent of pay)
Public Service Superannuation Plan				
Indexing from SAF	1,371	.11	444	.04
Indexing to SAF formula	11,946	.96	8,195	.67
Prior ad hoc augmentations	9,286	.74	9,633	.79
Total indexing payments	22,603	1.81	18,272	1.50
Teachers' Superannuation Plan				
Indexing from SAF	1,810	.08	599	.03
Indexing to SAF formula	24,312	1.02	16,433	.72
Prior ad hoc augmentations	18,190	.76	18,152	.79
Total indexing payments	44,312	1.86	35,184	1.54

Source Province of Ontario, Public Accounts.

As the government is paying 1 per cent of payroll to the SAF with respect to payments to SAF contributors, the cost to government for the year ending March 31, 1979 is 2.70 per cent for PSSF and 2.78 per cent for TSF. These figures reflect past inflation, which was low until about 1965, then started to rise and has been over 8 per cent per annum since 1973.

The value of a life annuity which increases at 5 per cent per annum is 44 per cent greater than a level life annuity for an employee retiring at age 65. On a pay-as-you-go basis, however, the ratio of indexed payments to level payments is considerably higher. This is because in the funded case the discounts for interest have most effect on the payments to be made at older ages, where the indexing additions are greatest. The indexing payments are in fact mostly pay-as-you-go, since the SAF has a relatively small and only temporary effect. Allowing for the economic assumptions, with inflation at 5 per cent per annum, the ultimate outgo for indexing is estimated to be 5.3 per cent of payroll. It should be noted that costs will be increased if the average retirement age is lowered.

Assuming that indexing in some form will be introduced in all sub-sectors, we consider that indexing will cost the employer some 3 per cent in 1980, rising to 4.3 per cent in 1995 in provincial government and education where employees contribute 1 per cent to the SAF. In municipal, health and provincial utilities, the cost is 4 per cent in 1980, rising to 5.3 per cent in 1995.

Summary

The following rates of contribution by employers to the pension plans are assumed:

	Regular plan	Indexing	Total
	(Per cent)	(Per cent)	(Per cent)
Provincial government	10.1	3.0 to 4.3	13.1 to 14.4
Municipal government	9.0	4.0 to 5.3	13.0 to 14.3
Health	7.7	4.0 to 5.3	11.7 to 12.3
Education	11.2	3.0 to 4.3	14.2 to 15.5
Provincial utilities	14.0	4.0 to 5.3	18.0 to 19.3

Projected Payrolls and Pension Costs: 1980-2005

Using the data and assumptions mentioned above, we estimate that payrolls for government employment will rise from $8.9 billion in 1980 to $84.9 billion in 2005, an almost tenfold increase. The number of employees will have doubled, and average salaries will be nearly five times their present dollar amounts. Inflation will have increased prices to three times their present level.

The rates of growth of provincial public employment and payrolls are faster than those of the Ontario work-force as a whole. Estimates made by the Commission as to the population of working age (20 to 64) will serve as an index of the Ontario work-force. Also the estimates of contributory earnings under the CPP for Ontario residents, while not including all earnings, provide some indication of general earned income.

	1980	2005	Per cent increase
Public service employment (thousands)	465	969	108
Ontario population 20-64 (thousands)	5,275	7,316	39
Public service payroll ($ billions)	8.9	84.9	854
CPP contributory earnings	37.8	281.7	645

Unfortunately, CPP contributory earnings, which have been used because no other estimates of total Ontario earnings are available, will for several years increase faster than such total earnings. The YMPE is rising at 12-1/2 per cent per annum, so that the contributory earnings comprise an ever larger percentage of total earnings. The YMPE will continue to rise at 12-1/2 per cent until it reaches the level of average earnings, probably soon after 1985 (depending on the inflation rate). If to exclude this transition period we examine the growth from 1985 to 2005, we find that the public service payrolls will grow by 490 per cent while CPP contributory earnings will grow by 330 per cent - showing a more accurate and more vivid contrast between public service payrolls and total payrolls in the province.

Pension costs to the employers in the Ontario public service are expected to rise in relation to public service payrolls as follows:

	1980	1985	1990	1995	2000	2005
			(Millions of dollars)			
Pension cost excluding indexing	916	1,479	2,340	3,563	5,469	8,432
Pension cost including indexing	1,221	2,036	3,329	5,260	8,129	12,598
			(Billions of dollars)			
Public service payroll	8.9	14.4	23.0	35.1	54.6	84.9
Cost as percentage of payroll:			(Per cent)			
excluding indexing	10.3	10.3	10.2	10.1	10.0	9.9
including indexing	13.7	14.1	14.5	15.0	14.9	14.8

Thus, pension costs for basic benefits will stay close to 10 per cent. The variations are primarily due to the different growth rates in different sectors, since we assume that the percentage of payroll

required in each sector for basic benefits will be constant. However, the indexing cost will rise as the system matures, and the total pension cost falling on the government as employer will rise from 13.7 per cent to about 15 per cent of payroll and then become roughly level (assuming no change in the benefits of the pension plans). It should be noted that these figures do not include contributions to the Canada Pension Plan or the cost of any other federal programs.

Pension costs in relation to total earnings of the Ontario population will rise, as indicated by the following comparison with CPP contributory earnings, which are a high proportion of all earnings.

	1980	1985	1990	1995	2000	2005
			(Millions of dollars)			
Pension costs excluding indexing	916	1,479	2,340	3,563	5,469	8,432
Pension costs including indexing	1,221	2,036	3,329	5,260	8,129	12,598
			(Billions of dollars)			
CPP contributory earnings	37.8	65.5	96.8	136.3	195.2	281.7
			(Per cent)			
Ratio excluding indexing	2.4	2.3	2.4	2.6	2.8	3.0
Ratio including indexing	3.2	3.1	3.4	3.9	4.2	4.5

Pension costs in relation to total earnings of the Ontario population will therefore rise substantially. It should be noted that the fall from 1980 to 1985 is spurious, being due to the rising YMPE of the Canada Pension Plan as mentioned above.

Table 19 shows the dollar amounts for the projected payrolls and pension costs.

Table 19
Payrolls and Pension Costs, Ontario Public Sector, Projections to 2005

	1980	1985	1990	1995	2000	2005
			(Billions of dollars)			
Estimated payrolls						
Provincial government	1.5	2.3	3.6	5.3	7.9	11.7
Municipal government	2.1	3.7	6.3	10.2	16.7	27.3
Health	1.1	2.0	3.6	6.1	10.5	18.0
Education	3.6	5.4	7.9	11.0	15.5	21.7
Provincial utilities	.6	1.0	1.6	2.5	4.0	6.2
Total	8.9	14.4	23.0	35.1	54.6	84.9
Pension Costs			(Millions of dollars)			
Provincial government	150	235	363	532	795	1,177
Municipal government	191	331	564	921	1,504	2,458
Health	85	154	275	472	810	1,388
Education	405	601	880	1,235	1,733	2,432
Provincial utilities	85	158	258	403	627	977
Total employer cost	916	1,479	2,340	3,563	5,469	8,432
Additional cost for indexing	305	557	989	1,697	2,660	4,166

Conclusions

The number of provincial public servants in Ontario is estimated to rise from 465,000 in 1980 to 969,000 in 2005. The increase is 108 per cent compared with a 39 per cent increase in the Ontario population of working age.

The annual cost of basic pensions (after deducting employee contributions and excluding indexing) will rise from nearly $1 billion in 1980 to $8.4 billion in 2005. This is the consequence of the increase in the number of public servants and a nearly fivefold increase in average salary, while prices will nearly triple in the period.

In addition, the cost of indexing pensions (taken as 4 per cent of payroll, rising to 5.3 per cent, the contributions being shared in the PSSF and TSF by the employee) will rise from $305 million to $4.2 billion. Such contributions are expected on our assumptions to cover the indexing cost on a pay-as-you-go basis until 2005 or later, but if inflation were greater or retirement age lower than in our assumptions, the Superannuation Adjustment Fund would be exhausted and the cost of this item would rise rapidly.

The five public employment sub-sectors have widely different characteristics and growth rates. The growth rates of employment assumed in our calculations are shown below, together with the projected 25-year increases:

Employment in	Annual growth	Increase, 1980-2005
	(Per cent)	(Per cent)
Provincial government	2.0	64
Municipal government	4.0	167
Health	5.0	239
Education	.75	21
Provincial utilities	3.0	109

The percentage of females varies remarkably between different government employments - from 14 per cent in Provincial utilities to 79 per cent in the health sub-sector. Overall the public service employment is 45 per cent female, compared with 40 per cent in the Ontario work-force.

The rates of termination of employment appear to be quite low in the education and utilities sub-sectors and much higher in the provincial, municipal and health sub-sectors.

As a result of the different growth rates and termination rates, it is expected that the average age will fall in provincial and municipal and health service, will be stable in utilities and will rise in education. The cost in each sub-sector is based primarily on the major

provincial pension plan in each case (i.e., PSSF, OMERS, HOOPP, TSF and Hydro).

It is not possible to predict the trend of cost as a percentage of payroll from the actuarial information available; we have therefore assumed that basic plan costs will be constant percentages. The employer cost as a percentage of payroll is taken to be:

	Basic pension cost	Ultimate indexing cost
	(Per cent)	
Provincial government	10.1	4.3
Municipal government	9.0	5.3
Health	7.7	5.3
Education	11.2	4.3
Provincial utilities	14.0	5.3

The overall pension cost, including indexing as above (and weighted for the sub-sectors) is expected to rise from 13.7 to 14.8 per cent of payrolls. In relation to the overall earnings of Ontario workers, the rise will be even steeper; as a percentage of CPP contributory earnings it will rise from 3.2 to 4.5 per cent in the 25-year period.

NOTES

(1) R.M. Skinner, Accounting Principles, Toronto; CICA, 1972, quoted in Accountants International Study Group, Study No. 18, Accounting for Pension Costs, 1977.

(2) R.M. Skinner, Pension Accounting, Toronto, 1980, Clarkson Gordon, p. 12.

(3) Accountants International Study Group, Study No. 18, paragraph 12.

(4) Ibid., paragraph 24.

(5) Tomenson-Alexander Associates, Report on Certain Aspects of the Public Service Employee Pension Program, 1977, p. 68.

LIST OF TABLES

Chapter 6

Other Public Sector Pension Issues

COLLECTIVE BARGAINING OF PENSIONS

There are 94 unions representing approximately 373,000 members of pension plans in the Ontario public sector out of a total of approximately 450,000 employees covered by pension plans. The unions range in size from the Ontario Teachers' Federation, representing 105,000 members, to the Sheet Metal Workers Union, representing two members. Twenty-four of the unions represent 500 or more employees.

Formal bargaining on pensions is not general practice in the Ontario public sector. Plans that are subject to bargaining (generally for both union and non-union employees) are:

- Hydro Pension Plan
- London and Ottawa Transit Commission plans
- Ontario Northland Transportation Commission plans
- Staff plans in some universities
- Faculty plan in York University
- Closed municipal plans: Metro Toronto
Metro Police
Borough of York
City of North Bay

In a few cases pensions are excluded from the scope of collective bargaining directly or indirectly as a result of legislation. The Crown Employees Collective Bargaining Act, which covers many members of

the PSSF, expressly excludes pensions from the scope of bargaining; however, it states that the governing principles should be subject to review by the employer and the bargaining agent). The OMERS Act, which defines the terms, conditions and benefits of the plan, allows for the negotiation of only specified supplementary benefits. The Teachers' Superannuation Act makes no reference to collective bargaining. In effect, the provisions of these plans can be altered only by negotiation with the government as opposed to the immediate employer.

HOOPP would appear to be theoretically bargainable. However, the various unions in the health sector do not have representation in all member hospitals. Even if they did, they could not realistically negotiate the provisions of the plan unless they were to bargain jointly. The same problem would exist in the PSSF, TSF, and OMERS if it were possible to negotiate the provisions of these plans, since all are multi-employer or multi-union plans. In a few cases, notably in a number of universities, it would appear that pensions are not negotiated because unionized employees constitute a minority of the plan's members.

Most unions have expressed the view that pensions should be negotiable, on the ground that employer contributions to pension plans represent employee income in the same way as salaries or other benefits, and that it is anomalous that they should be able to bargain on all items of compensation except pensions.

The Canadian Union of Public Employees (CUPE), in its brief to the Commission, made several recommendations on this point. It proposed:

- that the Ontario Pension Benefits Act be amended to recognize bargaining agents as the legal representatives of employees with regard to pension matters;

- that legislation be amended to establish mandatory joint pension boards of trustees or administrative boards with an equal number of representatives of employees and unions where one or both parties so desire; and

- that relevant legislation be amended to give unions the right to negotiate for retired employees.

CUPE stated that public sector unions to date had shown very little interest in the area of pensions, but this would not continue in the future, and more stress would certainly be put on pensions. CUPE recommended co-management as the appropriate way to administer contributory plans. It pointed out that New Brunswick currently had a 50-50 representation in the administration of its plans. With regard to pensioners, CUPE noted that under the Ontario Labour Relations Act the employer was not required to negotiate with the union on behalf of retired employees. However, CUPE had moved to maintain union membership

for retired employees, and the constitution of the union now recognized their rights. Changes in the law were required to uphold these rights.

The Ontario Public Service Employees Union (OPSEU) regarded as "absolutely unacceptable" the fact that employees covered by the Crown Employees Collective Bargaining Act and the Colleges Collective Bargaining Act were not allowed to negotiate pensions. The union maintained that employer contributions towards pension benefits are simply redirected wages and, accordingly, workers had a right to the entire assets of pension funds. Its recommendations were:

- that separate pension funds be created for bargaining unit employees in the public service and in the colleges of applied arts and technology and turned over to OPSEU, which would nominate the trustees and administrators and negotiate the rate of employer contributions;

- that hospital pensions be negotiated by an employer council and an employee council composed of bargaining agents representing hospital employees; control of HOOPP would be considered during negotiations; and

- that legislation be amended to permit OPSEU to negotiate for retired employees.

While OPSEU wished to control the pension plan and accept responsibility for the fund, it would not accept responsibility for accrued liabilities which occurred due to mismanagement by the employer. How these should be liquidated and by whom would be a matter of negotiations between the union and that employer. There was a precedent for this type of arrangement, it said, in the construction and garment industries. The manner of liquidating experience and actuarial deficiencies would be negotiable with the employer.

The Ontario Nurses Association (ONA) recommended that there be legislation to provide a formal means for employee input into pension fund management, funding, and planning. The union stated that, although HOOPP was theoretically bargainable, employees had no say in the plan whatever. The ONA bargains on a local basis, but pensions are on a provincial basis. According to ONA, the individual hospitals had no say in HOOPP since it was controlled by the Ontario Hospital Association. It was possible, however, to bargain for pensions in those hospitals which had separate plans.

The Ontario Provincial Police Association (OPPA) stated that it was only in the last 3 or 4 years that there had been some consultation with the government about pensions. Government, it said, had not been unsympathetic to the association's concerns. However, the OPPA felt that the government had not fulfilled its role in ensuring equitable treatment for provincial police officers. In the absence of the

opportunity to negotiate pensions, it was the responsibility of the government, as employer, to see that retirement provisions for the OPP were comparable with those in other Canadian police forces.

The Ontario Teachers' Federation (OTF) did not see a need for formal collective bargaining on pensions. In a sense, it said, it goes through collective bargaining with the Ministry of Education. Discussion of pensions at the local level would create chaos. In the future there would be a need for consistency across the public sector, and any kind of local negotiations would be completely against that trend.

There are a number of reasons behind the employers' view that public sector plans should not be negotiable:

(i) the complexity of final average plans, which would make bargaining of pensions very difficult;

(ii) the likelihood that bargaining would result in fragmentation of plans;

(iii) the possibility that each bargaining unit would attempt to obtain the best features of other plans, making it difficult to control costs; and

(iv) the view that it is the employer's responsibility to ensure that former employees have an adequate retirement income.

A number of comments should be made about these points in order to permit some conclusions to be drawn about their significance.

First, with regard to the complexity of the subject, while bargaining over final earnings plans is not unknown (Ontario Hydro is a case in point) bargaining usually takes place in flat benefit plans where the benefit is a dollar amount per year of service and the plans are non-contributory. (The only public sector plan in that category is one at McMaster University). Negotiation of a final earnings plan is said to be more difficult, since the costing of such plans is a more complex process. Perhaps the key issue here is whether the complexity associated with final earnings plans means only more difficult negotiations or whether it would be likely to result in settlements that are contrary to the public interest. The answer to the latter question might be largely dependent on how the parties handled deficiencies resulting from underestimates of costs.

The view that collective bargaining might result in fragmentation of pensions was expressed by Jacob Finkelman in his Report on Employer-Employee Relations in the Federal Public Service (1974). In recommending that the Federal Superannuation Plan should continue to be excluded from the scope of bargaining, Finkelman stated that the establishment of a

separate plan for each bargaining unit would seriously inhibit mobility within the public service, and that this would also jeopardize accrued entitlements as well as the actuarial soundness of the funds. He added, however, that some form of coalition bargaining might be possible, though this would require further study.

The negotiation of public sector plans in Ontario would undoubtedly result in some degree of increased fragmentation if only because it might be necessary to have separate plans for bargaining unit and excluded employees. Whether it would result in more fragmentation than that would depend on the approach that was taken to bargaining. For example, some form of coalition bargaining, as mentioned by Finkelman, might be a solution to the negotiation of major plans in which there are a number of unions (and in some cases many employers). Such an approach was proposed by OPSEU, which has a few bargaining units in hospitals, as a way to make bargaining of HOOPP more than a theoretical possibility. Specifically, it recommended in its submission to the Commission that the HOOPP plan be negotiated between a council of unions and an employers' council. How practical such an approach might be (including how acceptable it would be to all of the parties involved) is a question that would require more study.

The third argument mentioned for excluding pensions from the scope of collective bargaining was the view that unions would attempt to negotiate for themselves the best features of other plans, and that would result in an escalation of pension costs. This would appear to be the strongest argument for excluding pensions from the scope of negotiations. However, since bargaining would cover all items of compensation, it might just as easily be argued that the negotiation of pensions would force unions to recognize trade-offs that are involved among salaries, pensions, and other benefits. Indeed, the greater danger may be that some unions, particularly those with a young membership, might not give sufficient emphasis to pensions.

The latter point is related to the view that it is the employer's responsibility to ensure that former employees have an adequate retirement income. An employer's image may be adversely affected if long-service employees do not have adequate pensions. Whether or not employers are more likely than unions to be concerned about the adequacy of pensions for all employees is a question that relates generally to issues of adequacy and pensioner representation.

Alternatives to Collective Bargaining

Employee Control of Pensions

OPSEU was the only union to ask for control of pension plan funds and administration. Although there may be a theoretical case for this, no single employer in either the private or the public sector as yet has handed over a pension plan to a union. Multi-employer plans - which are

administered by boards of trustees appointed by unions and management - may be distinguished, since the liability of participating employers is limited to a cents-per-hour contribution.

A basic question to be considered is whether it is desirable that pension benefits should be contingent on membership in a particular union or bargaining unit. Aspects that would have to be considered include union membership policies (e.g., circumstances in which employees might lose their membership in the union, the feasibility of ensuring portability) and any union guarantee of benefits. Employee control would also have to be considered in conjunction with the issue of uniformity, an aspect which is discussed later.

Limited Bargaining

The OMERS plan, which permits negotiation of supplementary benefits, is a model which could be adapted to other plans. This approach would ensure a certain level of pension protection for all employees while permitting those who feel that they have special needs to negotiate better or different provisions. How far this might go to meet union concerns about pensions would depend on the nature of the basic plan provisions and the range of options made a subject for bargaining.

Joint Consultation

With the exception of the Hospitals of Ontario Pension Plan, which does not provide for consultation with employee representatives, most public sector plans provide for some form of consultation with employee representatives:

Teachers' Superannuation Fund - The Teachers' Superannuation Commission, which administers the fund, is composed of management and union representatives. Pension issues are discussed by the Minister of Education with the Ontario Teachers' Federation.

Public Service Superannuation Fund - There is one union representative on the four-member Public Service Superannuation Board, and provision is made for a joint commission with representatives from management and employees to discuss pension issues.

Ontario Municipal Employees Retirement System - There are four union representatives on an 11-member board. While the basic OMERS plan is not negotiable, employees of each municipality may negotiate with their employer whether or not they will join two supplementary plans which are offered by OMERS, and the extent of the employer's subsidy to the supplementary plan.

The Toronto Transit Commission Plan provides for a joint committee of management and union representatives to deal with pension issues.

The Workmen's Compensation Board Plan provides for informal consultation.

The pension plans at universities are subject to consultation between faculty and management representatives.

The Colleges of Applied Arts and Technology Plan provides for consultation with employee representatives, as do most of the small plans in the public sector.

Even with collective bargaining, there would be advantages to having regular consultation between employers and employee groups on pension matters. This could be a means to involve pensioners in discussion of matters affecting them. (No plan presently provides for inclusion of pensioners in joint committees.) Whether or not joint consultation could be considered a meaningful alternative to collective bargaining depends on the extent to which individual unions feel they can influence policy through this process. Some unions obviously believe that existing mechanisms are not sufficient. On the other hand, the teachers appear to be satisfied with the present system of direct consultation with the Minister of Education.

Joint administration of pensions may be considered an extension of joint consultation, and in general this is an area in which management and unions have co-operated successfully (e.g., the Public Service Superannuation Board, the Teachers' Superannuation Commission, the OMERS Board).

A problem that may arise in cases where employees are represented by more than one union, is that of determining the number of representatives each union will have on the board. In addition, there may be a need to provide employees with some form of appeal procedure from decisions of pension boards.

While the Commission favours the principle of collective bargaining, formal or informal, between employers and employees to determine pension benefits, it is not prepared to recommend any move to extend formal collective bargaining in the public sector at this time. The first priority for the government in relation to public sector pensions is to establish cost controls. To permit more collective bargaining before a control structure such as that recommended by the Commission is operating effectively would only lead to greater costs, which in turn would encourage those who favour a move to a defined contribution system. In any case, union participation is not just a matter of removing prohibitions of collective bargaining from the legislation. A satisfactory system of representation of all parts of the bargaining unit, through coalition bargaining or a similar joint arrangement, would have to be worked out before collective bargaining could operate fairly for all members of the bargaining unit and those excluded. It may also be that fragmentation makes any type of collective bargaining

impossible. To the extent that these problems cannot be satisfactorily resolved, pension matters should continue to be excluded from collective bargaining.

The Commission therefore recommends:

> That pensions be considered as appropriate for collective bargaining in the public sector, subject to the acknowledgement that there may be some circumstances in which collective bargaining may not be practicable, and that no new areas for collective bargaining of pensions be opened at this time.

PENSIONER REPRESENTATION

Both CUPE and OPSEU maintained that changes should be made in labour legislation so that unions could bargain on behalf of their retired members. However, representatives of the two pensioner organizations with whom Dr. Kelly met - the Ontario Municipal Retirees Organization and the Hamilton Civic Hospitals Quarter Century Club - were sceptical about the ability of unions to represent the interests of all pensioners, and maintained that there was a need for separate pensioner representation. Both groups felt that changes to pension plans often favoured active employees at the expense of retirees.

Members of OMRO receive pensions from OMERS and also from Confederation Life (the latter a closed plan for employees of municipal utilities) and changes had been made to both of these plans without input from or even notice to the affected pensioners. Specific concerns of OMRO were an announcement by OMERS that regular increases for pensions would be discontinued following the introduction of a final average earnings plan, and the decision to grant a 50 per cent survivor clause to active members of the Confederation Life plan while giving retired members a 15 per cent increase in pensions. More generally, OMRO was critical of the lack of information provided to pensioners.

As far as can be determined, pensioners are not represented at the present time on the board of any public sector pension plan, nor do they have any other formal say in decisions affecting them. In assessing whether or not they should have such representation, there are several questions to be considered:

- What would be the object of such representation? Would it be primarily to lobby for pension improvements? If so, is this a form of representation to which pensioners should be entitled as a matter of right? Are there other useful purposes that could be served?

- How effectively could pensioners represent themselves? There appear to be few public sector pensioner organizations, though

the Superannuated Teachers of Ontario and the Ontario Municipal Employees Retirement Organization represent pensioners of two of the major plans. Assuming that pensioners were more highly organized, could they realistically expect to have an effective voice in decisions?

Although a number of unions have maintained that they should be allowed to represent pensioners, Ontario labour legislation (or the interpretation that has been given to it) does not permit unions to bargain on their behalf. British Columbia appears to be the only jurisdiction in which such representation is possible. Employers take the position that unions cannot represent former employees, while some pensioner representatives have also suggested that unions are not appropriate organizations to represent them. First, not all pensioners are former union members. Secondly, they feel there may be a conflict of interest between union members and pensioners; that is, unions may emphasize wage increases rather than pensions. Even in matters of pensions there could be a conflict of interest between the active employees and the retired employees. For example, active employees might seek a final average formula, while the retired might wish to have indexing of pensions (as in OMERS).

The views of the Commission on pensioner representation are the same for the public sector as for other plans. It is not convinced that pensioners as a group have any rights for representation except where necessary to protect those rights to which they become entitled at retirement. If the Commission's recommendations for the full protection of retirees' benefits on a wind-up basis are adopted, the Commission can see little need for representation. The negotiation of better rights after retirement is a completely different matter, and the Commission sees no need to compel employers to provide representation for this purpose - either directly to pensioners or indirectly through the union.

The Commission does find, however, that lack of communication between employers and pensioners may have created a desire for representation as a means to obtain information. Employers might well consider more, and more timely, disclosure to pensioners as a response to the demand for representation.

RECIPROCAL TRANSFER AGREEMENTS

Reciprocal transfer agreements as providers of increased portability are discussed generally in Volume II, Chapter 8. The more frequent use of these agreements in the public sector than in the private sector is attributable to the homogeneity of employers within the transfer group. The agreements are primarily between Ontario public sector employers and between the Ontario public sector and that of other jurisdictions in Canada. There are few agreements between the public sector and the private sector.

Legislation under which major public sector plans in Ontario were established permits them to enter into reciprocal transfer agreements with other public jurisdictions. Some plans not governed by specific legislation also provide for transfer agreements. Major plan provisions are as follows:

PSSF: Agreements with the government of Canada, most provinces, and the major pension plans in the Ontario public sector.

TSF: Agreements with the government of Canada, the PSSF, the CAAT Pension Plan, and teachers' plans in other provinces.

OMERS: Agreements with the government of Canada, PSSF, CAAT, and one province.

HOOPP: Agreements with the government of Canada, PSSF, CAAT, and five hospitals.

Hydro: Agreements with the government of Canada, PSSF, OMERS, and two provinces.

Under reciprocal agreements, double contributions with a nominal rate of interest (ranging from 3 to 5 per cent) are transferred from one plan to another. If the amount transferred is less than the receiving plan requires, the employee has the option of purchasing up to the full pension service credit earned in the exporting plan.

The university plans provide for few reciprocal agreements, but most plans allow for the transfer of double contributions plus the fund rate of interest to another employer's plan or to an RRSP, provided that the contributions are locked-in. The exception is Trent University, which appears to permit a transfer of double contributions without locking-in, or a refund of double contributions (subject to the Pension Benefits Act).

A separate aspect of portability is the case where the government decides to move certain programs from one area to another in the public sector. A variety of bases have been used for the calculation of pension transfer values in such cases.

Transfers

Although it is not possible to show how many persons moved from one public sector plan to another in 1977, it is clear that, relative to total terminations, little use is made of the opportunity to transfer double contributions from one plan to another. For instance, there were 4,302 terminations from the PSSF in 1977 (excluding retirements). During the same period, there were 106 transfers under reciprocal agreements. Some 280 university employees took advantage of the option to transfer double contributions to RRSPs or other plans.

Table 1
Ontario Public Sector, Transfers Into and Out of Plans with Reciprocal Agreements, 1977

Sub-sector	Into plans	Out of plans
Provincial government	140	132
Municipal government	17	78
Health	60	30
Education		
Teachers	10	12(a)
CAAT	91	42

a 1976.

Source Royal Commission on the Status of Pensions in Ontario, "Ontario Public Sector Employee Pension Study Data."

In addition to transfer arrangements for employees who voluntarily terminate their employment, arrangements have also been made to ensure portability of pension rights when employees have involuntarily terminated their membership in a plan as a result of programs being moved from one area to another in the public sector. Ten major transfers, listed below, took place between 1966 and 1978. For some employees, the basis on which the transfers were arranged was less favourable than would have been the case had they transferred under reciprocal agreements, while for others the opposite was the case.

Transfers into the PSSF from other Funds

- Metro Juvenile and Family Court - 1966 : 125 employees
- Administration of Justice - 1968 : 2,000 employees
- Property Assessors - 1970 : 2,000 employees
- Water Resources - 1972 : 400 employees
- Ontario Housing Corporation - 1976 : 1,000 employees

Transfers from the PSSF to other Funds

- University of Guelph - 1965 : 800 employees
- Colleges of Applied Arts and Technology - 1967 : 700 employees
- Hospitals of Ontario Pension Plan - 1977/78: 420 employees

Others

- Nursing schools from HOOPP to CAATs - 1973 : 800 employees
- Hydro to OMERS (Municipal restructuring of Hydro) commenced in 1977, should eventually cover: 500 employees

Some criticism was expressed of the operation of existing reciprocal transfer agreements. The Ontario Nurses Association stated that while there is portability within HOOPP, there is no portability for employees of independent hospital plans. Nurses who transfer to or from one of these hospitals lose their pension credits if they are not vested. Problems are found in HOOPP, which has only limited portability within the public sector. More fundamentally, while many nurses put in long years of service, few have the unbroken service that is required to build up pension rights under current vesting regulations.

The OPPA noted that while members could go to municipal police forces and transfer their pensions to OMERS, not all smaller police forces qualified. In addition, pensions are not transferrable to plans in other areas of employment to which police might move, such as a security company. Dean E.F. Baumert, Northern College of Applied Arts and Technology, suggested that it should be possible to provide for country-wide portability which would enable public sector employees to move freely from one province to another. Some individuals outlined specific problems relating to their own pension entitlement; these problems stemmed from two aspects of existing reciprocal mechanisms:

(i) the requirement that a person who joins the Ontario public service from an organization with which it has a reciprocal agreement must do so within 3 months of leaving the previous employer; and

(ii) the fact that transfer arrangements do not cover employees who moved to the public service prior to the retroactively established date.

In the first case, it was maintained that the three-month requirement was unduly restrictive, given the length of time that may elapse between termination of employment and the start of new employment. In the second case, it was suggested that the retroactive date should have been extended further back.

While the Commission generally favours any practice which has the effect of increasing true portability, one of its prime concerns for public sector plans is cost. Reciprocal transfer rights are one of the benefits noted in the list of especially desirable features for comparison with the private sector in the chapter on public sector costs. There is no doubt that reciprocal transfer agreements result in higher costs for the public sector employer. Any extension of reciprocal rights should be considered carefully from the cost point of view.

Sometimes the agreement may operate to provide a better result for transferring employees than for those who stay. For example, most university plans allow for the transfer of double contributions plus the fund rate of interest, either to another employer's plan or to an RRSP, provided the contributions are locked-in. Up to about age 45, double

contributions might provide for higher benefits than those promised in any defined benefit plan for each year of service, but for older employees they would fall increasingly short of purchasing the promised benefits. Thus, a younger person who moved to another plan and for whom double contributions were transferred to an RRSP in respect of service with the previous employer might end up with a higher pension than would have been received had the employee been employed continuously with either one for the same number of years. For an older employee, the opposite might be the case.

Some plans, in connection with reciprocal transfer rights, provide an option for the employee to buy back past service credits in the receiving plan. Again, the Commission has no objections if these rights are properly costed and the cost fairly allocated between employer and employee. Some agreements, for example, may operate to allow an employee who transfers into the plan to obtain inflation protection under the Superannuation Adjustment Benefits Act for pension service accrued in a plan in which no such protection was provided. Such benefits should only be provided at a suitable cost to the transferring employee.

The Commission therefore recommends:

> That the terms of reciprocal transfer agreements for public sector employees be reviewed and, where necessary, be altered to result in neither undue gain nor undue loss to the person making a transfer from one plan to another and to ensure that the cost of additional benefits which become available upon transfer, such as improved benefits for past service with other plans, are fairly allocated between the employer and the employee.

PENSIONS FOR PROVINCIAL JUDGES

Ontario has legislative jurisdiction over the pensions of 191 provincial court judges and 8 small claims court judges. At present, pensions for these judges are governed by the Public Service Superannuation Act. Judges contribute 7 per cent (less CPP contributions) to the PSSF, as do provincial civil servants. The pension formula is a 2 per cent, five years' highest earnings formula, to a maximum of 70 per cent integrated with CPP benefits. Cost-of-living adjustments are made annually, based on increases in the CPI, to a maximum of 8 per cent. Survivors are eligible to receive half the pension entitlement if the plan member is vested; if not, the survivor is entitled to twice the member's contributions plus interest. Normal retirement age is 65. However, as with other PSSF members, judges may retire at age 60 with an unreduced pension, providing they have 20 years' service or their years of age and service equal 90. The salary of a provincial court judge is currently about $52,000.

Submission of the Judges

The Provincial Court judges are seeking improved pension benefits and a plan separate from that of public sector employees. They submit that independence of the judiciary requires financial security both while on the bench and in retirement, and that a special status in pension matters is therefore needed that cannot be fulfilled by membership in the public service employees' plan.

The principle is well established that the judiciary, as one of the three branches of government, should have separate status if it is to remain independent and free from undue influence. In an address to the Meeting of Commonwealth Law Ministers on August 23, 1977 in Winnipeg, Chief Justice Bora Laskin of the Supreme Court of Canada said,

> "The extent of the separation will reflect the significance which the political authorities attach to adjudication and to the role of judges in the interpretation and application of the law."

The Provincial Judges Association believes:

> "...that an adequate pension or annuity such as is enjoyed by the federal judges, is a support that must be provided, in order to maintain the independence of the Provincial judges, and if the said support is lacking, the result is an outside pressure that could threaten the independence of the judiciary."

If institutional traditions that assist the judiciary in the development of adjudicative law are to develop, the judiciary must have its own exclusive framework within which to grow. The judiciary, although not independent of the structure of government, must have independence of function within that structure. The salaries and pensions of federal judges are fixed by Parliament as required by section 100 of the BNA Act.

The judges urge implementation of a separate pension plan pursuant to the Provincial Courts Act, which provides that the Lieutenant-Governor in Council may make regulations providing for the benefits to which judges are entitled, including "pension benefits for judges and their widows and surviving children, and for the transfer or other disposition of benefits in respect thereof to which persons appointed as Judges under this Act were entitled under the Public Service Superannuation Act at the time of their appointment under this Act" (Section 28(1)). This provision was enacted after the McRuer Report on Civil Rights which recommended that the salaries of magistrates be equated to those of county court judges. In 1973, the Ontario Law Reform Commission observed that the Provincial Courts Act clearly contemplated a separate scheme of benefits for provincial judges. It recommended that pension benefits be provided on a non-contributory basis as they are for federally-appointed judges.

It was argued by His Honour Judge V.K. McEwan on behalf of the judges, that the provisions in the Provincial Courts Act require the plan for judges to be constituted under that act, although the wording of the act is permissive in form. It is also doubted that judges are "civil servants" or "crown employees" or "public servants" as defined in the PSSA. His argument is supported by the reasoning in Landreville v. The Queen.(1)

Special status is also urged having regard to the "second career" nature of judicial duties. In 1970 the average age of appointment to Provincial Court (Criminal Division) was 44 years. The maximum number of pensionable years of service is 21, and the PSSA plan would yield a pension of 40 per cent of the average of the five highest years of salary. The judges pointed out in their brief that their pension benefits were poorer than those of provincial judges in any other province except Nova Scotia.

The judges are seeking pension benefits similar to those provided for members of Ontario's Legislative Assembly under the Legislative Assembly Retirement Allowances Act (LARA). The current compensation of MLAs is $22,000 plus an $8,000 expense allowance. They contribute 8-1/2 per cent of salary, and the unit of benefit is 4 per cent for the first 10 years and 3.5 per cent for the next 10 years up to a maximum of 75 per cent based on the average of the highest 3 years' salary. The government does not pay CPP contributions; accordingly, the CPP benefit is stacked. There is no provision for automatic indexation of retirement benefits, but there have been three ad hoc adjustments to date. Full accrued pension benefits are payable when age and service equal 55 after a minimum service of 5 years. The survivor pension is 60 per cent, plus 10 per cent for each child to a maximum of three.

In 1978 the judges asked for the same pension benefits as members of the Legislative Assembly but with the same indexing as public servants. Their present objective is a benefit which accumulates at a slightly lower rate than provided for under LARA; i.e., they would accumulate 70 per cent of salary in 21.5 years, while LARA members accumulate 75 per cent of salary in 20 years. However, the judges ask for automatic indexing which, in their case, would increase the liability by approximately 50 per cent assuming automatic indexing at 5 per cent each year. The judges also wish to pay lower contributions than members of LARA (7 per cent of salary instead of 8-1/2 per cent).

Actuaries for the government have calculated liabilities for judges' pensions (based on 155 judges - now 191) as follows:

	Total liability (Millions of dollars)
1. Judges' existing benefits under the PSSF	
a) With no indexing	
Retirement at age 70	23.7
Retirement at age 65	25.4
b) With indexing	
Retirement at age 70	34.7
Retirement at age 65	39.4
2. LARA benefits applied to judges amended as of August 29, 1979	
a) With no indexing	
Retirement at age 70	36.4
Retirement at age 65	43.1
b) With indexing	
Retirement at age 70	54.3
Retirement at age 65	67.8

Members of the Legislative Assembly receive the same insurance benefits as civil servants: life insurance, long-term disability insurance, medical insurance, and dental insurance. Judges also receive these benefits. However, judges now participate in other public service benefits, the most costly of which is attendance gratuity/severance pay.

Conclusion

The Commission agrees with the submission of the judges that the independence of the judiciary requires the enactment of a pension plan for judges separate from that of civil servants and so recommends. Such a plan should be subject to the Pension Benefits Act.

Similarly no issue was taken with the separate plan for MPPs, and the Commission supports the separate plan for MPPs provided it is subject to the requirements of the Pension Benefits Act. We support such separate plans not because of the short-service nature of the respective duties or the special nature of the careers, but rather as a corollary of the separation of judicial, legislative and executive powers of government.

Our recommendation applies to all members of the judiciary. Justices of the Peace Harold J. Gibson and Ralph E. Faulkner (Brief 396), submitted that Justices of the Peace are members of the judiciary rather than public or civil servants. The Attorney General should be requested to determine this matter of legal status. All members of the judiciary to which Ontario's legislative powers apply should then be members of the same plan.

It is not the function of this Commission to recommend the terms of plans. That is best left to negotiation between the judges and the government, and to the Legislature.

PENSION PARITY

The question of pension parity for public sector employees has three general aspects:

1. <u>Parity with the private sector plans</u>

This matter is discussed in detail in the chapter on cost. The Commission endorses the principle that parity is desirable (assuming some reliable method of comparison) and that the government, as employer, should not lead the way. Some of the Commission's recommendations - that all public sector plans should be explicitly subject to the Pension Benefits Act; that all benefits must be funded in an established fund; and that investments must be through the private capital markets - should assist in a movement towards parity between public sector and private sector plans. Some of the following discussion relating to parity among Ontario's public sector plans is also affected by the course taken in the private sector.

2. <u>Parity between Ontario public sector plans and those of other jurisdictions</u>

Chapter 2 contains a comparison of the main provisions of both the PSSF and the Legislative Assembly Retirement Allowances Account (LARA) with those of comparable plans in other jurisdictions. These comparisons reveal a good deal of similarity in pension benefits provided by the various jurisdictions in Canada. There is no doubt that the design reflects a movement towards parity not so much to facilitate mobility among the jurisdictions as the desire to obtain the best benefits possible. This approach is borne out by the brief of the Ontario Provincial Police Association (Brief 183) in which part of the argument was based on a survey comparing the retirement age and benefit provisions under federal, provincial and municipal plans for major police forces in Canada. While no jurisdiction has a single plan covering all public sector employees, the federal government and Quebec government plans have a much wider range of membership than does the PSSF, while in some

other jurisdictions there appears to be a high degree of uniformity of benefits among different plans. It appears, too, that efforts are being made in some provinces to bring about greater equalization of benefits.

The Commission sees a natural movement towards parity among the various jurisdictions in Canada but, given the differing conditions of employment in each jurisdiction, it makes no recommendation that the government should take steps to hasten this movement.

3. Parity among Ontario public sector plans

Views expressed to Dr. Kelly and in briefs to the Commission on the subject of parity of public sector pension plans were mixed. There was a fairly widespread view that greater uniformity would be desirable. Yet many felt that their own particular group had special needs which might not be met effectively under a completely standardized approach.

CUPE, for example, indicated that it would like to see uniformity in terms of benefits, negotiations, and administration; and OPSEU expressed a similar view. A merging of plans, the latter added, should be a long-term objective, not to be attempted until standards had been brought up to the same level. In CUPE's opinion, the Colleges of Applied Arts and Technology (CAAT) plan, for example, was poorer than the PSSF. Some had indexation, others did not. The same contributions did not provide the same benefits in each plan. Although in favour of greater uniformity, OPSEU stressed that there should be separate plans for bargaining unit and other employees.

The OTF stated that it would go along with some similarity of pensions within the public sector, but it would not support any hard and fast uniformity because the situation of teachers was different. For example, they stay in the profession for a long time and for that reason have excellent service linkage and reciprocal agreements within the teaching profession. Employees in other public sector areas might not see those features as important.

Most other comments on this issue came from university employee groups and these largely centred on whether there should be greater uniformity among university plans rather than on whether there should be more uniformity with other areas of the public sector. A number of briefs pointed out aspects of disparity among the plans. These are outlined in Chapter 2. Readers are also referred to the detail of major plan provisions for each sub-sector set out in Volume VII.

While many of the differences among the plans are minor and probably reflect circumstances at the time the plan was introduced and the nature of the employment group covered, there are some areas of general interest to be addressed.

Adequacy

Over 95 per cent of members are in plans in which the basic benefits are calculated on a final or best average formula. Many of these plans have a 2 per cent per year accrual rate. This type of plan is acknowledged to provide the best benefits of those generally available. Complaints of inadequate pensions, therefore, result not from the benefit formula but rather from the effect of short service accruals under the plan. This problem, dealt with extensively in Volume II, affects employment pensions generally and not just pensions for public sector employees. If the mandatory plan recommended by the Commission is adopted, a basic level of protection will be created. The public employee supplementary pensions should then be assessed by the government on the net replacement ratio method to determine a suitable level of benefit accrual. These levels are the subject matter for discussion between government employers and their employees, but must be considered against the background of cost and parity with the private sector. For example, the teachers who now have a seven-year averaging would like to move to five-year averaging. The additional cost should be considered in the light of total benefits under the teachers' plan.

Indexing

Cost is a limiting factor for indexing of retirement benefits. The Commission has recommended the funding of indexing in accordance with proposed amendments to the Pension Benefits Act, and repeal of the Superannuation Adjustments Benefits Act. If indexed benefits are to continue to be promised as at present the cost must be shared between employer and employee in some manner that recognizes the whole cost. This is not to say that indexing should not be extended to those public sector plans which do not now provide indexing (OMERS, HOOPP among the major plans) but rather that the benefit must be funded and the full cost recognized and paid for by the parties. If the full cost is so recognized, discussion between employers and employees will determine what benefits are needed and to what extent.

Conditions for Retirement

a) Earlier normal retirement

Several groups, notably the Ontario Provincial Police, seek special treatment in acquiring a fully accrued pension at retirement at age 55 with 30 years' service, or similar earlier retirement provisions. These provisions would create a desire among public employees in general for earlier retirement and would foster a demand for equal treatment on the ground of parity among public employees, unless special circumstances warrant different retirement provisions.

The OPP Association argues that such treatment should be afforded because of the stress accompanying the job and because its physical

requirements are such that working beyond age 60 may create a danger to the public. Similar arguments based on job stress were made by the TSF and the Ontario Nurses Association.

The Commission has pointed out the costs involved in earlier retirement. If such special treatment is granted, it should not be without recognition of the full cost and possibly increased contributions by the employees towards the costs, as is now done by some groups under OMERS. It is also necessary to consider the economic consequences of the loss of experienced personnel.

For these reasons the Commission does not favour any general reduction in the age at which unreduced pensions are available. It does acknowledge that there may be special circumstances for particular groups of employees which make unreduced pensions at lower retirement ages necessary.

In the Commission's opinion it has not been shown that job stress for certain groups in the public sector is any different from that in certain job situations in the private sector such as those of miners. Whether there are other special circumstances which warrant different treatment for any one group of government employees is a matter of informal bargaining between employer and employees.

The Commission therefore recommends that the Government of Ontario not take steps to lower the existing retirement ages at which unreduced pensions are available except where it can be demonstrated that unreduced pensions at earlier ages are a necessity for a special group. In those cases the additional cost of earlier unreduced retirement benefits should be fairly borne by employer and employees.

b) Calculation of actuarial reductions

The Ontario Teachers' Federation (Brief 192) raises a problem regarding actuarial reductions for early retirement which was not otherwise presented to the Commission. It proposed that pension reductions for early retirement never exceed actuarially determined reductions in benefits. There was no evidence offered that this in fact was happening, but the Commission would support the principle for all employment pension plans that the employee taking early retirement should not suffer a penalty greater than that required to protect the solvency of the pension plan. If this should become an issue it should be referred to the Pension Commission of Ontario for consideration and, if necessary, regulation.

c) Re-employment after retirement; the earnings test

The opportunity to retire on an actuarially unreduced pension prior to age 65 is more prevalent in public sector plans than in the private sector. Retirement conditions are described in Chapter 2. Whether or

not one should then be allowed to be re-employed either by the same employer or a new one without affecting the payment of the pension raises questions about the nature of a pension; whether a pension has been fully earned so that it is irrelevant whether or not one pursues other employment, or whether a pension is to provide income when one is no longer gainfully employed.

The latter view is reflected in the notion of an earnings test, under which the pension of a retired employee is suspended or reduced when earnings from employment exceeds a specified level. The notion of pensions as deferred wages, on the other hand, supports pensions as earned rights, with a pension to be received unconditionally once the conditions for earning it have been fulfilled.

An earnings test may be applied whether or not a retiree is 65. Although after age 65 there may be no dramatic decrease in employment earnings, there seems litle support for the imposition of an earnings test after age 65. Apparently there is a generally accepted shift to the view of a pension as an earned right once one has reached age 65.

Some public sector plans impose an earnings test. For example, if a pensioner receives more than the amount permitted under section 16 of the Public Service Superannuation Act (PSSA) from re-employment or engagement in the service of the Crown, the pension is reduced by the amount by which the pension payments plus the salary for the re-employment exceeds the salary at the time of retirement. However, there is an exemption where the person is re-employed in the expert category under the Public Service Act.

The Teachers' Superannuation Act generally prohibits re-employment while in receipt of a pension. In exceptional cases, the regulations provide a formula for reduction of pension income if a pensioner is re-employed. OMERS suspends the payment of pensions during re-employment unless the retiree has attained 71 years of age. Ontario Hydro permits certain re-employment of superannuates for a period of one year without suspension of pension.

The Commission received some criticisms of these earnings tests. Mr. Norman Adams (Brief 388) had worked for 27 years with the LCBO and retired in 1967. Since then, he had been employed on a casual basis as a court constable. He could earn $1,074.64 per quarter and then excess earnings were reduced dollar for dollar from his pension.

There are several inequities and issues related to the earnings test. The following should be noted:

1. Not all Ontario public sector plans have an earnings test.

2. The PSSA reduction formula is based on the latest pre-retirement earnings; these may be relatively low in nominal terms where the person has been retired for some years.

3. An earnings test previously provided in the federal public service plan was removed in 1975. Consequently, a retired federal civil servant, unlike his counterpart in Ontario, may have post-retirement earnings from any source without a reduction in pension - even if the new employment is with the federal or the Ontario government.

4. The PSSA provides for exemption from reduction or suspension if a person's expertise is desired by the Lieutenant-Governor in Council. Thus, low-level and unskilled workers are more likely to be subject to the earnings test. The sophisticated may also use corporate vehicles to avoid reduction.

5. Employment by employers other than the Crown does not affect pension entitlement. If the intent of the legislation is to prevent an employee from earning both pension and a salary simultaneously, the legislation does not go far enough - except perhaps for teachers. By the very nature of the training of a teacher and the employment opportunities, it is almost impossible for a retired teacher to obtain a teaching job in Ontario without offending the rule against continuing employment. The employer is to all intents the government, though a teacher may be hired by different boards of education. Thus the teacher is in the position where he or she cannot obtain other employment in his or her own field of expertise.

If the legislation is to control demand for re-employment after retirement it is questionable whether that control should be exercised in the guise of a limit on pension entitlement. If the Human Rights Code were amended to outlaw mandatory retirement provisions based on age, the use of an earnings test might become more widespread as a tool for controlling retirement age. The validity of an earnings test for this purpose could be questioned in both the private and the public sectors.

The use of earnings tests is not now widespread in the private sector. The auto industry has been unable to enforce these provisions (which extend to all employment and not just with the former employer) primarily because of unavailability of income tax information. In the Commission's opinion it is important for the government to monitor what is happening in the private sector to determine whether the earnings test should remain in those public sector plans which now use one. It should also be noted that retirees in the private sector who are subject to an earnings test with the same former employer have much more opportunity to find employment with a different employer. On this point alone, teachers can make a good case for the withdrawal of the earnings

test. However, teachers' pension levels and declining job opportunities may be such that an earnings test by itself will not result in hardship.

Revenue Canada has recently taken a position which concerns an earnings test for employment pensions. In response to a request from William M. Mercer Limited, Revenue Canada gave the following ruling:

> "There is no intention that the rules set out in Information Circular 72-13R5 prohibit an employee who has retired from employment and is in receipt of a pension from subsequently taking casual or part time employment with his former employer, whether over or under age 65 at the time of such re-employment, provided that such casual or temporary employment does not qualify as pensionable service under that employer's pension plan. In other words, such casual employees may receive both remuneration and pension at the same time, even though under age 65, provided they are not accruing further benefits under the plan.
>
> "Paragraph 10(a) of the Circular does not prevent an employee from retiring from one employer, taking employment with another and at the same time drawing a pension from the former and remuneration from the latter, regardless of the employee's age. The paragraph does, however, restrict an employee from retiring before age 65 for purposes of the plan only and continuing in employment with that employer - at least, it prevents payment of the pension prior to age 65 under such circumstances."(2)

Thus, Revenue Canada recognizes age 65 as a line of demarcation to be applied where a pension plan otherwise might pay benefits unconditionally to persons who qualify before that age, even if they continue in the same employment. To be acceptable for tax purposes, a plan therefore must impose some form of retirement test where a pension becomes payable before age 65. The test of retirement must relate at least to continuation with the same employer, but may allow for "casual or temporary employment" without affecting the person's pension. In no case - before or after age 65 - can further pension credits accrue to a retiree while a pension is being paid. There is no requirement, however, that the plan take notice of a pensioner's employment with another firm, or whether such other employment is pensionable under a different plan. (Certain exceptions to these rules are mentioned in the circular referred to above).

The OPP Association objected to the application of the PSSA earnings test to policemen, on the ground that re-employment in the private sector was unavailable. Whether certain groups within the PSSF such as police and teachers require special recognition of their inability to obtain re-employment other than in the Ontario public sector, should be a decision left to the particular employer and Management Board.

In the private sector the earnings or retirement test has developed in circumstances where those who were entitled to retire before normal retirement age were paid certain supplements to ensure they could live in retirement before payments from government programs (OAS and CPP) commenced. It was reasonable to preserve the intent of such supplements by requiring a complete or partial withdrawal from the work-force. Special provisions for unreduced pensions before age 65 in the public sector entail subsidies analogous to these supplements and therefore the Commission can endorse the use of an earnings test in the public sector plans before age 65. After that age however, taking into consideration the inequities mentioned above, the Commission sees no justification for the continuation of such tests.

The Commission therefore recommends that all earnings and retirement tests for public sector employees who have attained the age of 65 be abolished; and that other action be determined by the government after considering the Revenue Canada rules and examining its own re-employment policy, so that public sector policy for re-employment conditions will follow that in the private sector.

ADMINISTRATION OF PUBLIC SECTOR PENSIONS

Responsibility for the administration of several of the major public sector pension plans does not lie with the employer. OMERS is administered by an 11-member board consisting of 7 employees, 2 elected representatives, and 2 civil servants, all appointed by the Lieutenant-Governor in Council; the TSF is administered by the Teachers' Superannuation Commission, consisting of 6 members appointed by the Minister of Education and 5 appointed by teachers; the Queen's University plan is administered jointly by employer and employees; HOOPP is operated by an employer association, the Ontario Hospitals Association.

This separation of responsibility from the employer creates special problems for the control of pension costs. We have already noted the effect on pension costs of the fact that teachers' salaries are bargained between teachers and individual school boards (the employer) while the pension benefits are settled through the Ministry of Education. The government should pay particular attention to costs where the employer is not in control of the pension administration.

Either the employer pays all costs of administration or costs are paid out of plan funds. With one exception, the employer's contributions are charged to the employing institution, even in multi-employer plans. This is also true for the PSSF which charges back to employing ministries and agencies all payments made on behalf of members, including deficiencies. The exception is the TSF, to which the Ministry of Education pays all employer payments including deficiencies, with no charge-back to the employing school boards. Administrative costs for OMERS were 6 per cent of expenditures ($23.4 million) in 1976. PSSF

administrative costs in 1978 were $1.6 million, or 2.8 per cent of expenditures.

There is clearly no overall control by any one person, ministry, commission or board, of the cost or co-ordination of pension benefits. The area of cost and its allocation which is of prime concern to the Commission, has been dealt with extensively and recommendations made for the establishing of cost control. The question of co-ordinating pension benefits remains.

Most provinces in Canada have established central co-ordinating and control mechanisms for public employee pension funds. The same is true of many jurisdictions in the United States. In the last two or three years, steps have been taken to strengthen existing mechanisms as a result of a better understanding of pensions generally and a greater awareness of their financial impact. Control is exercised either through the consolidation of public sector pension plans, as in Quebec and some U.S. jurisdictions, or the establishment of a central board or commission with responsibility for recommending legislative changes and controlling costs. The latter method is used in British Columbia.

In Ontario, limited control has been instituted through a review by Management Board of proposals for changes in public sector pension provisions where the plan is established under acts or regulations. Guidelines for pension valuation have also been issued to the five major plans. A number of pension plans in the public sector, however, are not subject to specific legislation. No legislation other than the Pension Benefits Act exists to establish standards or control for all pension plans applicable to public employees in Ontario.

The Commission considered alternatives to solve the co-ordination and control problem in addition to its recommendations for cost control. One alternative was a consolidated public sector pension plan to cover all public sector employees. While it would not be difficult to legislate a basic plan, it would probably be necessary, for the accommodation of the needs of different groups (such as teachers and police), to adopt supplementary plan features as has been done under the OMERS plan. In that event, the real difficulties of funding, cost control and varying employer-employee relationships would remain. Indeed these problems could be magnified by combining groups with different experience, such as HOOPP with its mobile work-force and the TSF with its long-service employees. The same benefits will have different costs depending on the make-up of the group. These costs in return could affect the contributions required from the employees.

One large plan would also present administrative difficulties in representation from the various sub-sectors and unions. A body made up of many representatives, each with a special interest to advance, is unlikely to achieve an overall view of the needs of the whole group.

On the other hand, if all groups were not represented in some way the scheme would lose credibility and there would inevitably be employee dissatisfaction.

While such an overall plan might have positive effects for administrative control, the Commission sees it as disruptive in the extreme for the employees, who are familiar with their existing plans and for whom the individual plan design is probably most appropriate. As long as the defined benefit plan continues to be the normal vehicle for public sector plans the Commission would not recommend a consolidated pension plan. However, if, as suggested in the discussion of cost control, such control cannot be effected and there is a move to the defined contribution plan type, then one consolidated plan could be seriously considered.

Another alternative the Commission considered was the creation of a central board or commission with legislated authority to assume the tasks of providing cost control and co-ordination for all plans in the public sector. The purpose of such a body would be to:

- make such recommendations to the government as will result in consistent and cost-efficient pension benefits for public employees, bearing in mind the impact of any changes on the private sector;

- ensure that costs of existing or projected pension benefits in the public sector are reported on a consistent and generally accepted basis;

- receive submissions from public employers, employees, unions, pensioners, plan administrators, and other interested parties, on pension benefits matters;

- recommend to the government the organization and responsibilities of pension plan administrative boards and investment committees in the public sector, including provisions for appropriate employee representation;

- maintain such records as are necessary for the performance of its duties and require appropriate regular reporting from public sector pension plans.

The Commission does not favour the creation of such a body at this time but prefers instead that cost control be effected through Management Board and the Treasury as recommended earlier. With the overall cost control function might be linked the power to organize administrative and investment committees to advise the plan sponsors. Cost control through Management Board and Treasury goes to the very heart of the cost problem. Creating another board to stand between the plan sponsors and Management Board and the Treasury might produce only

additional complexity, with the final decision still to be made at Management Board and Treasury level.

In the Commission's opinion, it is important that a viable cost control and co-ordinating mechanism be put in place before the government proceeds with changes in the existing pension benefits structure in the public sector.

There may be need for some body to deal specifically with individual employee matters such as adjudication of any pension entitlement disputes. At the present time there is no appropriate appeal procedure established. Since pensions are not generally negotiable in the public sector, differences cannot be resolved by a grievance board, and some appeal procedure is necessary. This should be made available through the Pension Commission of Ontario, as recommended in Volume III, Chapter 13. It is important that the same body adjudicate pension entitlement disputes for both the public and the private sectors. This is in keeping with the principle of employing a common approach for both sectors. It is also important for government employees to have access to a body which is independent from the government as pension plan sponsor.

EFFECT ON THE PUBLIC SECTOR OF THE COMMISSION'S RECOMMENDATIONS FOR EMPLOYMENT PENSION PLANS

The Commission affirms the principle that government employer pension plans should be administered on the same basis as those of employers in the private sector. Accordingly, the recommendations contained in the first part of the report, "Design for Retirement," are equally applicable to all employment pension plans in Ontario. The only recommendation which is different for public sector plans is that which requires public sector plans having assets of more than $150 million to file an actuarial valuation annually with the Pension Commission of Ontario, while all other plans (in the private or public sector) need file only triennially. Where Volume VI is silent on important matters such as eligibility, transfer rights, vesting, portability, etc., reference should be had to Volumes II and III.

The recommendations for the establishment of a mandatory retirement savings plan (PURS) will have the same implications for public sector plans as it has for those in the private sector. If PURS is adopted, the public sector plans will become more supplementary and may be altered to meet the needs of the work-force covered by a particular plan. The PURS plan may be in addition to the employment pension or it may be integrated with it. We have set out in Volume II the requirements for integration.

For the public sector the Commission sees a special need to assess existing plans both with and without PURS integration, on a net re-

placement ratio basis. Since the major public sector plans are using final or best average formulas they may already be providing adequate retirement income when the pension payment is added to income from government programs, in terms of "available income" as defined by the Commission in assessing adequacy of government programs. Accordingly, instead of increasing the total benefit, it may be better to allocate any funds released by integration with PURS to the provision of inflation protection.

PURS should not be a signal simply to increase existing pension benefits for government employees by ignoring integration. This would have serious implications for government costs and would also require an additional contribution from government employees who are already contributing higher percentages than those in most private sector plans. Clearly, there is a need to observe a reasonable balance between people's provision for retirement income and their present-day consumption requirements.

If employment plans are integrated with PURS it will be incumbent on the Pension Commission of Ontario to see that the rights on transfer are protected for the PURS minimum on a fully funded basis as in any defined contribution plan. The Commission's recommendations for the funding of public sector plans should therefore be implemented as soon as possible if integration with PURS is to be undertaken.

NOTES

(1) Landreville v. The Queen, unreported, Federal Court of Canada, April 29, 1980. Judge McEwan argues in a letter to the Commission dated September 9, 1980:

"In my submission, that decision fortifies the contention contained in my brief, filed on January 24th, 1980, that the word 'may' where it appears in the first line of section 28(1) of The Provincial Courts Act is mandatory and must be read as 'shall.'

"I have also drawn the attention of your Counsel to the provisions of section 99c(1) of The Judicature Act R.S.O. 1970 as amended. This section was enacted by Section 4 of The Judicature Amendment Act S.O. 1975 Chap. 30. Prior to this enactment, the Masters of the Supreme Court derived their pensions from the Public Service Superannuation Fund. Section 99c(1) obviously envisaged and intended inter alia the creation of a new scheme of pensions for the Masters which would be separate from the Public Service Superannuation Fund; and for the transfer to that scheme of the existing entitlement to benefits which the Masters were considered to have from the Public Service Superannuation Fund. In my submission, any construction of section 99c(1), other than the foregoing, would render the section meaningless and superfluous.

"Much of the wording of section 99c(1) is almost identical to that of section 28(1) of The Provincial Courts Act. If the foregoing submission as to the intention of the Legislative Assembly in enacting section 99c(1) of The Judicature Act is correct, it was likewise the intention of the Legislative Assembly that Provincial Judges, their widows and surviving children be provided inter alia with a scheme of pension benefits separate from the Public Service Superannuation Fund."

(2) Quoted from Mercer Actuarial Bulletin, August, 1979, Volume 29, Number 8.

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Chapter 7

Conclusions

The Commission sees pensions for public sector employees as no different from those for private sector employees. They are provided voluntarily, may be wound up voluntarily, and reflect the needs and desires of the particular employee group and its employer. It follows that the regulation and operation of these plans should parallel the private sector, except in the very few instances where closer regulation is required in the public sector for cost control purposes. Therefore the discussion and recommendations for employment pensions set out in Volumes II and III apply equally to pension plans in both sectors.

Recommendations in this volume are primarily directed to having public sector pensions move to parallel operation with private sector plans; for example, in funding under the Pension Benefits Act, investment in the private sector markets, and in bringing indexing within the plan provisions.

The Commission sees pension benefits themselves within the scope of total compensation. The Commission endorses the principle that the public sector should not lead the private sector in total compensation, however difficult the establishment of criteria for measuring compensation. There should therefore be some concern on the part of the government to achieve overall parity between the private and the public pension sectors. We say "overall" because we recognize that the same benefits for different groups of people will vary in cost, and we regard cost as the most important criterion for comparing total compensation. Within overall parity there should also be room to accommodate the special needs of a particular group of employees. As in the private sector, preferences of a group of employees should be determined by negotiation, formal or informal, between those employees and their employer.

Having said that public sector and private sector pensions should be treated in the same way, we also have to recognize that public sector pension plans differ markedly in size, and in degree of cost control. As a result, there are special problems of administration. At the present time these problems are aggravated by data prepared on differing bases and for differing time periods, and by a lack of control over all public sector pensions by one agency of government. Our recommendations are directed to solving these problems with a view to putting the government in a sound position to recognize and control pension costs in the future. If this is not done now the overall costs will very soon be out of control to the detriment of the taxpayers of Ontario and ultimately the plan members. The alternative to the kind of cost control recommended is to discontinue the present plans and switch to a money-purchase design. If it is impossible for government to identify and control the costs of its pension plans, then perhaps the only answer is a new design. Cost control is, without doubt, the most important area in which the government must take action now for public sector pension plans.

The recommendations applying specifically to public sector plans are set out in full in the Summary Report.

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